```
<110> Rosen et al.
 <120> 67 Human secreted proteins
 <130> PZ023
 <140> 09/363,044
 <141> 1999-07-29
<150> 06/073,160
<151> 1998-01-30
<150> 06/073,159
<151> 1998-01-30
<150> 06/073,165
<151> 1998-01-30
<150> 06/073,164
<151> 1998-01-30
<150> 06/073,167
<151> 1998-01-30
<150> 06/073,162
<151> 1998-01-30
<150> 06/073,161
<151> 1998-01-30
<150> 06/073,170
<151> 1998-01-30
<160> 298
<170> PatentIn Ver. 2.0
<210> 1
<211> 733
<212> DNA
<213> Homo sapiens
<400> 1
gggatccgga gcccaaatct tctgacaaaa ctcacacatg cccaccgtgc ccagcacctg
                                                                         60
aattcgaggg tgcaccgtca gtcttcctct tccccccaaa acccaaggac accctcatga
                                                                        120
teteceggae teetgaggte acatgegtgg tggtggaegt aagceaegaa gaceetgagg
                                                                        180
tcaagttcaa ctggtacgtg gacggcgtgg aggtgcataa tgccaagaca aagccgcggg
                                                                        240
aggagcagta caacagcacg taccgtgtgg tcagcgtcct caccgtcctg caccaggact
                                                                        300
ggctgaatgg caaggagtac aagtgcaagg tctccaacaa agccctccca acccccatcg
                                                                        360
agaaaaccat ctccaaagcc aaagggcagc cccgagaacc acaggtgtac accctgcccc
                                                                        420
catcccggga tgagctgacc aagaaccagg tcagcctgac ctgcctggtc aaaggcttct
                                                                        480
atccaagcga catcgccgtg gagtgggaga gcaatgggca gccggagaac aactacaaga
                                                                        540
ccacgcctcc cgtgctggac tccgacggct ccttcttcct ctacagcaag ctcaccgtgg
                                                                        600
acaagagcag gtggcagcag gggaacgtct tctcatgctc cgtgatgcat gaggctctgc
                                                                        660
acaaccacta cacgeagaag ageeteteee tgteteeggg taaatgagtg egaeggeege
                                                                        720
gactctagag gat
                                                                        733
```

<212> DNA

```
<210> 2
  <211> 5
  <212> PRT
  <213> Homo sapiens
  <220>
  <221> Site
  <222> (3)
  <223> Xaa equals any of the twenty naturally ocurring L-amino acids
  <400> 2
  Trp Ser Xaa Trp Ser
  <210> 3
  <211> 86
  <212> DNA
 <213> Homo sapiens
 <400> 3
 gcgcctcgag atttccccga aatctagatt tccccgaaat gatttccccg aaatgatttc
                                                                           60
                                                                           86
 cccgaaatat ctgccatctc aattag
 <210> 4
 <211> 27
 <212> DNA
 <213> Homo sapiens
 <400> 4
                                                                           27
 gcggcaagct ttttgcaaag cctaggc
 <210> 5
 <211> 271
 <212> DNA
 <213> Homo sapiens
<400> 5
                                                                          60
 ctcgagattt ccccgaaatc tagatttccc cgaaatgatt tccccgaaat gatttccccg
 aaatatctgc catctcaatt agtcagcaac catagtcccg cccctaactc cgcccatccc
                                                                          120
 gcccctaact ccgcccaft ccgcccattc tccgccccat ggctgactaa ttttttttat
                                                                          180
 ttatgcagag gccgaggccg cctcggcctc tgagctattc cagaagtagt gaggaggctt
                                                                          240
 ttttggaggc ctaggctttt gcaaaaagct t
                                                                          271
 <210> 6
 <211> .32
 <212> DNA
 <213> Homo sapiens
 <400> 6
                                                                           32
 gcgctcgagg gatgacagcg atagaacccc gg
 <210> 7
 <211> 31
```

			3			
<213> Homo	o sapiens		3			
<400> 7						
gcgaagctto	gegaeteee	c ggatccgcc	t c			31
<210> 8						
<211> 12						
<212> DNA						
<213> Homo	sapiens					
<400> 8						
ggggactttc	: cc					10
3333						12
<210> 9 <211> 73						
<211> /3 <212> DNA						
<213> Homo	sapiens					
	_					
<400> 9						
		: ccggggactt	tccggggact	ttccgggact	ttccatcctg	60
ccatctcaat	Lag					73
<210> 10						
<211> 256 <212> DNA						
<213> Homo	sani ens					
1101110	Duplond					
<400> 10						
			ggactttccg			60
			aactccgccc			120
			actaattttt gtagtgagga			180 240
cttttgcaaa			33-3-35-	99000000	gaggeetagg	256
<210> 11						
<211> 1179						
<212> DNA						
<213> Homo	sapiens					
<400> 11						
*	aatttqccaa	ggttctaaag	gcttatgagg	tcctgaagga	accadacett	60
			tcctgtcagc			120
ggctgagagg	aggacacgga	gggctctgct	gaggttcctt	cctgggttcc	accaacaggg	180
			ctgggatggc			240
			ttttttttt			300
			cttatggttt gattcgctta			360 420
			actgtgatca			480
agtgcaggca	gcaggtgtgg	ttcaggtccc	ccccacccc	actgtgctcc	tttgaagcca	540
acgtgcctcc	ctcgcctcca	tactggaggg	acgacgcagg	ggagaacaga	gaagtgcttg	600
			ccgctgggtt			660
aaccagcaga	atgaggctaa	ctgtataaag	cgaatccggg catgggaccc	aggatgagga	taaggegee	720 780
acagcggctt	tccctgggca	gtacaatggc	ttgaaggcaa	aaagggataa	agtgacagcc	840
gactgtgact	ctggtgagga	ggggtgagca	gggaggttga	ttctctgatg	ttaactaagt	900

```
ggcaaagtet caacegtget cagecetece ceteceaggg aagagaaaca aagatteaaa
                                                                        960
    gtaagcatga tactagtggg tttaccagtg tttcttccaa ggagacatat atttttaat
                                                                        1020
    1079
    <210> 12
    <211> 1932
    <212> DNA
   <213> Homo sapiens
   <400> 12
   cccgcagcag ctcccaggat gaactggttg cagtggctgc tgctgctgcg ggggcgctga
                                                                         60
   gaggacacga getetatgee titteeggetg eteateeege teggeeteet gtgegegetg
                                                                        120
   ctgcctcagc accatggtgc gccaggtccc gacggctccg cgccagatcc cgcccactac
                                                                        180
   agggagcgag tcaaggccat gttctaccac gcctacgaca gctacctgga gaatgccttt
                                                                        240
   cccttcgatg agctgcgacc tctcacctgt gacgggcacg acacctgggg cagttttct
                                                                        300
   ctgactctaa ttgatgcact ggacaccttg ctgattttgg ggaatgtctc agaattccaa
                                                                        360
   agagtggttg aagtgctcca ggacagcgtg gactttgata ttgatgtgaa cgcctctgtg
                                                                        420
   tttgaaacaa acattcgagt ggtaggagga ctcctgtctg ctcatctgct ctccaagaag
                                                                        480
   gctggggtgg aagtagaggc tggatggccc tgttccgggc ctctcctgag aatggctgag
                                                                        540
   gaggeggeee gaaaaeteet eecageettt cagaceeeca etggeatgee atatggaaca
                                                                        600
   gtgaacttac ttcatggcgt gaacccagga gagacccctg tcacctgtac ggcagggatt
                                                                        660
   gggaccttca ttgttgaatt tgccaccctg agcagcctca ctggtgaccc ggtgttcgaa
                                                                        720
   gatgtggcca gagtggcttt gatgcgcctc tgggagagcc ggtcagatat cgggctggtc
                                                                        780
   ggcaaccaca ttgatgtgct cactggcaag tgggtggccc aggacgcagg catcggggct
                                                                        840
   ggcgtggact cctactttga gtacttggtg aaaggagcca tcctgcttca ggataagaag
                                                                        900
   ctcatggcca tgttcctaga gtataacaaa gccatycgga actacacccg cttcgatgac
                                                                        960
   tggtacctgt gggtwcagat gtacaagggg actgtgtcca tgccagtctt ccagtccytr
                                                                       1020
   gaggcctact ggcctggtct kcagagcctc rttggrgaca ttgacaatgc catgaggacc
                                                                       1080
   ttcctcaact actacactrt atggaagcag tttggggggc tcccrgaatt ctacaacatt
                                                                       1140
   cctcagggat acacagtgga gaagcgagag ggctacccwc ttcggccaga actyattgar
                                                                       1200
   agegeaatgt acctetaceg tgceaegggg gayeecacee teytagaact eggaagagat
                                                                       1260
   gctgtggaat ccattgaaaa aatcagcaag gtggagtgyg gatttgcaac aatcaaagat
                                                                       1320
  ctgcgagacc acaagctgga caaccgcatg gagtckttct tcctggccga gacygtgaaa
                                                                       1380
   tacctctacc tyctgttyga cccrrccaac ttcatccaca acaayggstc caccttcgac
                                                                       1440
  gcggtgatca ccccctatgg ggagtgcatc ctgggggctg gggggtacat cttcaacaca
                                                                      1500
  gaageteace ceategacee tgeegeeetg caetgetgee agaggetgaa ggaagageag
                                                                      1560
  tgggaggtgg aggacttgat gagggaattc tactctctca aacggagcag gtcgaaattt
                                                                      1620
  cagaaaaaca ctgttagttc ggggccatgg gaacctccag caaggccagg aacactcttc
                                                                      1680
tcaccagaaa accatgacca ggcaagggag aggaagcctg ccaaacagaa ggtcccactt
                                                                      1740
  ctcagctgcc ccagtcagcc cttcacctcc aagttggcat tactgggaca ggttttccta
                                                                      1800
  gactcctcat aaccactgga taattttttt attttattt ttttgaggct aaactataat
                                                                      1860
  1920
  aagggcggcc gc
                                                                      1932
  <210> 13
  <211> 1827
  <212> DNA
  <213> Homo sapiens
  <400> 13
  caaactgcac gacatcgacg gcgtacctca cctcatcctc atcgcctccc gagacatcga
                                                                        60
  ggctggggag gagctcctgt atgactatgg ggaccgcagc aaggcttcca ttgaagccca
                                                                       120
  cccgtggctg aagcattaac cggtgggccc cgtgcctccc cgccccactt tcccttcttc
                                                                       180
  aaaggacaaa gtgccctcaa agggaattga attttttttt tacacactta atcttagcgg
                                                                       240
  attacttcag atgtttttaa aaagtatatt aagatgcctt ttcactgtag tatttaaata
                                                                       300
  tctgttacag gtttccaagg tggacttgaa cagatggcct tatattacca aaacttttat
                                                                       360
```

attctagttg tttttgtact ttttttgcat acaageegaa egtttgtget teeegtgeat

```
gcagtcaaag actcagcaca ggttttagag gaaatagtca aacatgaact aggaagccag
                                                                           480
   gtgagtctcc tttctccagt ggaagagccg ggaccttccc cctgcacccc cgacatccag
                                                                           540
   ggacggggtg tgaggaagac gctgcctccc aatggcctgg acgggatgtt tccaagctct
                                                                           600
   tgttccccta acgtctcaac aggcgctcac tgaagtgtat gaatattttt taaaaaggtt
                                                                           660
   tttgcagtaa gctagtcttc ccctctgctt tctcgaaagc ttactgagcc ctgggcccca
                                                                           720
   agcacgggcc gggcatagat ttcctcttcc acaagtgccg cttttctggg caccttgaag
                                                                           780
   catcagggcg tgaaatcaaa ctagatgtgg gcagggagag kgttgcttac ctgcctgctg
                                                                           840
   gggcagggtt tcctgaaact gggttaattc tttatagaaa tgtgaacact gaatttattt
                                                                           900
   taaaaaataa taataaaaat ttaaaaaaat taaaaataaa aaaaaccaca gaaaacaact
                                                                           960
   ttacatgtat ataggtcttg aagtgagtga agtggctgct ttttttttt tttttttt
                                                                          1020
   gctttttttt gctttttgta gaagagattg agaatggtac tctaatcaaa aataaagttt
                                                                          1080
   tgtagtggga ccagaaatta cttacctgac atccacccc attccccctc atcctgctgg
                                                                          1140
   ggttgaaagt tccagacctg ctgtcgaggc cttgtgtttg tcagacaccc agtgtcctcc
                                                                          1200
   tgcaaggacg caactgtgag ctgaggtgtg agcctaggag cccaggaccc ctgaccccgg
                                                                          1260
                                                                          1320
   ccgctgctgc cagcctcaga aaggcaccca ggtgtgcagg ggagcacaca gggcccggca
   gcccccagga atcaaggata gggctaaggt tttcacctta actgtgaagg caggaggaat
                                                                          1380
   aggtgactgc ttcctcccgc ccttcacaga actgattctc acacactgtc ccttcagtcc
                                                                          1440
   agggggccgg ggctcaggag ccatgacctg gtgtctcctg cccaccctgg tcccaggtaa
                                                                          1500
                                                                          1560
   atgtgaatgg agacaggtat gagaggctgt cctcgtcttt gattcccccc caaccccacc
   tegggeetea egaeggtget acetaagaaa gtetteeete eeaceeeeg etageetggt
                                                                         1620
   cagtggtcag caaattggaa gaggatccga tgggagtgta aatgtgagac acaatgtctt
                                                                          1680
   gattatacct gtttgtggtt tagctttgta tttaaacaag gaaataaact tgaaaattat
                                                                          1740
                                                                         1800
   ttgtcatcat aaaaatgaaa caaattaaaa tatttattgc caggcaaaaa aaaaaaaaa
                                                                         1827
   aaaaaaaaa aaaaaaaaa aaaaaaa
   <210> 14
   <211> 696
   <212> DNA
   <213> Homo sapiens
  <400> 14
                                                                           60
  ggcacgaggt ggaggagaaa tttaacagtc ctctcatgca gacggagggt gacattcaaa
  tgggagaatt tacttctgtg gtttgctact gtttcattct ttcccttatc attggtagtg
                                                                          120
                                                                          180
  ttgttaggtg geagggttgt ggggcagagt ggggtttcgc cctgggggag catatgtggc
                                                                          240
  agagggcaca ggaagatctg taagcaagag ggcatagcaa attaaatgac cacactgtca
                                                                          300
  ggaaggttga caggccaaag aaagatcagc tcctccaaat ctgctgaact aactctcccc
                                                                          360
  tegtageece agacaegttt teteaatttg ageacaatat ceattaetat tteeegtaet
  gggtttcaat taaagagagt gagagtagaa agttcactgg tgtttggggg ttcatttatt
                                                                          420
tccaagcagg atgcaaatga aagggagccg tgggcacaga gttgtcatgt gtgtttttcc
                                                                          480
  tccctcttct ttccatttcc ttcttgcaac cttccctcca cttcttgcca gccacccagc
                                                                          540
                                                                          600
  acacccgtgt tcccaaagca aatgttttca wgtcttgaaa atccagttag ggtgaggaga
  gaaggaaggt gataacatca tacctactga tgccccctag agatgaagct gtcctggggg
                                                                          660
  cacttaaggc ttgagggaag gatttacctt ctcgag
                                                                          696
  <210> 15
  <211> 1684
  <212> DNA
  <213> Homo sapiens
  <220>
  <221> SITE
  <222> (736)
  <223> n equals a,t,g, or c
  <400> 15
  gtatccgcga cgagctatcc gggaaagggc cgaatgcgat caaacctaat ccgcgagact
                                                                           60
  tgctaaggtt ctgtgctaca aattgatgtt tagataaact tcagtgaaat gactcttcag
                                                                          120
```

```
gaattggtgc ataaggctgc ctcctgytat atggacagag tagctgtatg ttttgatgaa
                                                                       180
 tgcaacaacc agcttccagt ttactacacc tacaagactg tggttaatgc tgcttctgaa
                                                                       240
 ttatcaaatt ttctgctgtt acactgtgac tttcaaggaa ttcgggaaat tggtctctac
                                                                       300
 tgccaacctg ggatagactt accetettgg attttaggaa ttetecaagt eceggetget
                                                                       360
 tatgtaccta tcgagccaga ttcaccaccg tcattatcaa ctcattttat gaaaaaatgt
                                                                       420
 aatctaaagt atatccttgt tgaaaaaaaa caaattaata aatttaaatc ttttcatgaa
                                                                       480
 acattattga actatgatac atttacagtg gaacataatg acctagtgct cttcagactt
                                                                       540
 cactggaaaa atactgaggt gaacttgatg ctaaatgatg gaaaagagaa atatgaaaaa
                                                                       600
gaaaaaataa aaagcataag ttotgagcat gtoaatgaag aaaaagcaga agaacacatg
                                                                       660
gatctgaggs taaagcattg cttagcctat gttctacata catcagggac tacagggata
                                                                       720
ccgaagattg tcagantgcc tcataagtgt atagtaccaa atatccagca ttttcgggta
                                                                       780
ctttttgaca tcacacaaga agatgttttg tttctgkytt cacctytgac cttcgatcct
                                                                       840
tctgttgtgg aaatatttct tgctctatca agtggtgcct ctctgcttat tgtaccaact
                                                                       900
tetgteaagt tgeteceate aaaattagee agegttetet ttteeeatea tagagtgaet
                                                                       960
gttttgcagg caacaccaac attgcttaga agatttggat ctcagcttat caagtcaact
                                                                      1020
gttttgtcag ccactacttc tcttcgagta ttagcccttg gtggtgaagc gtttccatca
                                                                      1080
ttgacagttc tcagaagctg gagaggagaa ggcaataaaa cacaaatatt taatgtttat
                                                                      1140
ggtatcacag aggtatcaag ttgggcgacc attwatagga ttccagagaa gactcttaac
                                                                      1200
tctactctca aatgtgaatt gcctgwacaa ctgggatttc cacttcttgg aacagtagtt
                                                                      1260
gaagtcagag atactaatgg cttcacaatt caggaaggca gtggccaagt atttttaggt
                                                                      1320
tgttttatat ttgttgattg ggaatttttt tttcaagaaa aatgatctga tgtgttaatt
                                                                      1380
ttattccttt cgtcttttc ttttgtctat ctcatgcttt tcagtgataa tttttattct
                                                                      1440
cattcatata gtcatgaaat accaaatgtt acaataatta tttcagataa taatgtctaa
                                                                      1500
cacattaata aaagtaattt agagactgta acttggacct tcatatttat atttatagcc
                                                                      1560
aaaattatat ttaatcagta gtctaagaat ttttttaatt ccataaattt taagaaataa
                                                                      1620
1680
ccgc
                                                                      1684
<210> 16
<211> 1523
<212> DNA
<213> Homo sapiens
<400> 16
cagacattgt tagctactga gtggcacatc ttcagtacgc atggattcgt gggggactca
                                                                       60
ggcagaggta aaagtgtgaa acttttcagc attacctaag aagcaaaggc tcaattttgg
                                                                       120
ctgcttcatt cttatctctt ctgccacagt tctaacgtgc ctgatctact gagaccaagg
                                                                      180
atgaccaatg actcagaagg gaaaatggga tttaaacacc caaagatcat ggggaatttc
                                                                      240
agaggtcatg ccctccctgg aaccttcttt tttattattg gtctttggtg gtgtacaaag
                                                                      300
agtattetga agtatatetg caaaaagcaa aagegaacet getatettgg ttecaaaaca
                                                                      360
ttattctatc gattggaaat tttggaggga attacaatag ttggcatggc tttaactggc
                                                                      420
atggctgggg agcagtttat tcctggaggg ccccatctga tgttatatga ctataaacaa
                                                                      480
ggtcactgga atcaactcct gggctggcat catttcacca tgtatttctt ctttgggctg
                                                                      540
ttgggtgtgg cagatatett atgttteace ateagtteac tteetgtgte ettaaceaag
                                                                      600
ttaatgttgt caaatgcctt atttgtggag gcctttatct tctacaacca cactcatggc
                                                                      660
cgggaaatgc tggacatctt tgtgcaccag ctgctggttt tggtcgtctt tctgacaggc
                                                                      720
                                                                      780
ctcgttgcct tcctagagtt ccttgttcgg aacaatgtac ttctggagct attgcggtca
agteteatte tgetteaggg gagetggtte ttteagattg gatttgteet gtateeceee
                                                                      840
agtggaggtc ctgcatggga tctgatggat catgaaaata ttttgtttct caccatatgc
                                                                      900
ttttgttggc attatgcagt aaccattgtc atcgttggaa tgaattatgc tttcattacc
                                                                      960
tggttggtta aatctagact taagaggctc tgctcctcag aagttggact tctgaaaaat
                                                                     1020
gctgaacgag aacaagaatc agaagaagaa atgtgacttt gatgagcttc cagtttttct
                                                                     1080
agataaacct tttcttttt acattgttct tggttttgtt tctcgatctt ttgtttggag
                                                                     1140
aacagctggc taaggatgac tctaagtgta ctgtttgcat ttccaatttg gttaaagtat
                                                                     1200
ttgaatttaa atattttctt tttagctttg aaaatatttt gggtgatact ttcattttgc
                                                                     1260
acatcatgca catcatggta ttcaggggct agagtgattt ttttccagat tatctaaagt
                                                                     1320
tggatgccca cactatgaaa gaaatatttg ttttatttgc cttatagata tgctcaaggt
                                                                     1380
```

tactgggctt gctactattt gtaactcctt gaccatggaa ttatacttgt ttatcttgtt

				7			
		gaaataaatg aaagggcggc			a ramaaaaaa	a aaaaaaaaaa	1500 1523
	<210> 17 <211> 601 <212> DNA <213> Homo	sapiens					
	attcccaggg gatctggccc ttcagccata cctttgcacg cactctacta gagttaggtg ttattgtact tgagagcaga	acttcaggat ttgcttacct gtggatcact tgctgtttgc atgcctcttc tctgtccttt gtattataat acggtgtctt	caagtcctag ctcagcctta caccattccc tgtgcgtgga attctttat atgatcccgc tgttgaaaac cattatctct	ttgttcagca gctctcccaa agatgtacca atgcccttca actcagcttt agtattccat ttgtctgtcc gtatcccaa	tggcatccaa ctcttgcaca ggctctcgca ctgtcaccac ctttaaagtt gaatacgtat catttagaat	tctccagtgg gactctttat gtcactgctc cacctctgca cctgctcatc cttctaagct attctcacat gtgagctcct agtgccttgc aaaaactcga	60 120 180 240 300 360 420 480 540 600
	<210> 18 <211> 2609 <212> DNA <213> Homo	sapiens					
	gttatgtgca atgtgagggt ggatagatac ggatgcatga	tgcaaagatg gtgtgtgtgt atagatggat gtgggtggat atagatgcag gtgtgtaaag	tgtttagggg gtatggatgg gggtggtttc ggttggcatg ggtggttgga tgctaagaac	tgtgtgtaag atgcatagat atgcataaat cgtgcaagaa tgatgtgtgt tgtgcattga	aagctatgtt gcatagatgt ggatggatgg tggatgcagg rtgtgtgtgt catccaaaca	ttggttggta atggatgggt gtggatggat gtgtgtgt	60 120 180 240 300 360 420 480
- Communication of the Communi	tgtttatgta gaagtattta attttgttat gggtccttgt tgttgatatg ttattaattg agtaatggtt	tgttttgttt ttttgtgaag cagtgccagc ggggcaggtt tttgcttctg tcattaccac tttggctctt	ttggtgggga atggcaattt ccaatatacc ttgcaaagct atttgggaag tactctccat gttaatatcc	ataaggagag tgcatttgtt tgctctacca tatcaggtaa ctaaacattg tactttttgt atcataaaat	agaggacgac taaattttt ttatttgcgg taacatatgc gtgtttgaga ttggaaattg agattgttt	aaattctatt tcattcttta tctgataaaa cacataacct ggattgccaa aacaaaggtc agattctttc	540 600 660 720 780 840 900
	cagggtgatt tgtttcaaag caacatttgc tctgctagtt tctaattttc ggatccttaa taggccactt ctgtacttta	ggaaacattc tttactttta gctgatcagc ctatagtgtg atattgctat tctaaaaaag	gcttgtagtt ttcacagaga cagtcagttc actaaaaggg gtataataag ccacatatgt	ccattttact aagttggctt acctagcttc aggcaaatta ccagttatta gcaatttca	tgatctctac tgatgtctct aatctttata ttggaacgga tatcaggacc ggtttttaga	aagggactga taaagataat ggacttctaa ttattcaaat atgttctctg ctattgctcc	960 1020 1080 1140 1200 1260 1320 1380
	ttatatgcag atttcatgct tatatgaata gatatcaaga actagagaat aacagcaggt atcgtgatta	cttttgacta acttcttgaa atctttatct tttatgtctg tctgtgcaaa agtagacaga	gcatgtattg agtttactct gcaggatggt ggaactaaaa catatcatct acaataacag	tgtcttttc ttgatgctct ggattggtaa tatataatgc cttcaaatgc tttcgcgtta	tcctctatga aagagaacag attaggagaa caaatgtgtt tgcacacttt agactttaa	ataattttat ccagatggtt tgttgtttga tttgtcaatt gcttttgtta aggaaataga	1440 1500 1560 1620 1680 1740

<400> 20

```
ttgtctagaa tgtagcatct agtgactttt taaagcccta acgtttacat aaagaagctc
                                                                          1860
    tagttcttat agaaataaca aagcaaataa aagttcttaa caatcccctc tttcgaagtg
                                                                          1920
   cattttttta aagcaggca ggagacattt ggactctagc tatatgacat actgggaaaq
                                                                          1980
   gcagagggtg gagggaagat ttcacttcat tgtctagccc agaatcttga gcaagctaaa
                                                                          2040
   gaaaccatca taatctaaaa ttgcttcatt taacactaac aatttagact ttttaaacca
                                                                          2100
   agcattgaat aatggctgga taactgccga agtaagcgcc gctccatgaa gtctgcttac
                                                                          2160
   ttatttaaaa attgtgtatc agttttaaat actgttcatt gtgtgcagat ataaggggaa
                                                                          2220
   tagggcattc tgtagaatta tacatgtcta gtttgtaaag tgtgtcctgt gtactgcaga
                                                                          2280
   tgtgtgttct ctgggcttta tgtatctgta cagtagcttt cacattaaaa aaattgtgga
                                                                          2340
   caaacttgtc cggggggttt gaggggagaa tggtggttta tatcaataac gatgctgtac
                                                                          2400
   tatagtccat gtaacaaaag atctggaagt caccctcctc tggcccacgg aaaattttgg
                                                                          2460
   taatcttcta ggttctaaaa tgaagatgta tgggtactct ggcagactgc atgttgtata
                                                                          2520
   atttgaaaaa tactaaaagt ggaaaataaa attgaattaa actttraaaa aaaaaaaaaa
                                                                          2580
   agggcgcccg ctcgcgatct agaactagt
                                                                          2609
   <210> 19
   <211> 1113
   <212> DNA
   <213> Homo sapiens
   <400> 19
   ggcacgagcg gggacggggc taagatgata tctgggcacc tcctacaaga accgactggg
                                                                            60
   tetecagtag tetetgagga geegetegae etteteeega eeetggatet gaggeaggag
                                                                           120
   atgectecce egegggtgtt caagagettt etgageetge tettecaggg getgagegtg
                                                                           180
   ttgttatccc tggcaggaga cgtgctggtc agcatgtaca gggaggtctg ttccatccgc
                                                                           240
   ttcctgttca cggctgtgtc gctgctgagc ctctttctgt cagcattctg gctggggctt
                                                                           300
   ctgtacctgg tctctccttt ggagaatgaa cctaaggaga tgctgactct aagtgagtac
                                                                           360
   cacgagegeg tgcgctccca ggggeageag ctgcageage tccaggeega getggataaa
                                                                           420
   ctccacaagg aggtgtccac tgttcgggca gccaacagcg agagagtggc caagctcgtg
                                                                           480
   ttccagaggc tgaatgagga ttttgtgcgg aagcccgact atgctttgag ctctgtggga
                                                                           540
   gcctccatcg acctgcagaa gacatcccac gattacgcag acaggaacac tgcctacttc
                                                                           600
   tggaatcgct tcagcttctg gaactacgca cggccgccca cggttatcct ggagccccac
                                                                          660
   gtgttccctg ggaattgctg ggcttttgaa ggcgaccaag gccaggtggt gatccaactg
                                                                          720
   ccgggccgag tgcagctgag cgacatcact ctgcagcatc caccgcccag cgtggagcac
                                                                          780
   accggaggag ccaacagcgc ccccgcgat ttcgcggtct ttggcctcca ggtttatgat
                                                                          840
   gaaactgaag tttccttggg gaaattcacc ttcgatgttg agaaatcgga gattcagact
                                                                          900
   ttccacctgc agaatgaccc cccagctgcc tttcccaagg tgaagatcca gattctaagc
                                                                          960
  aactggggcc accccgttt cacgtgcttg tatcgagtcc gtgcccacgg tgtgcqaacc
                                                                         1020
tcagaggggg cagagggcag tgcacagggg ccccattaaa catgctgatt tttggagtaa
                                                                         1080
   aaaaaaaaaa aaaaaaaaaaa aaa
                                                                         1113
  <210> 20
   <211> 947
  <212> DNA
  <213> Homo sapiens
  <220>
  <221> SITE
  <222> (547)
  <223> n equals a,t,g, or c
  <220>
  <221> SITE
  <222> (555)
  <223> n equals a,t,g, or c
```

```
tgaagacaag ggtggcatat atttactttg caataagtac accatattgg gtccttttga
                                                                          60
 gattgtcatt tgggtgtgta gcatttaaga tttaacagct ttctattata gagatcctac
                                                                         120
 agctttatat, tagaagatta ttctgaagtc ataacatttt tttaaaaaaag taatttcaga
                                                                         180
 aaaaaaaaa aatgttactg ggataatgag gaatgatgtc tagctgcctg gtggtggtca
                                                                         240
 tcactctgcg tgcttatttt agttggttgc aggccattag aagtcaagtt gtctggtcac
                                                                         300
 gaatgaaacg tttacagtct gcttcaaggc aatcaggact atccattccc aggagtgaaa
                                                                         360
 tgtctgcatt gcatagactg caagattgga gtgataaatc acacatactt ttttttattt
                                                                         420
 ttttgccaag agtttgtagg ttcccattat aaagccaggc acttgattta gaatgtgtaa
                                                                         480
 ggcaatcett tgggaatget ttgggatyca gcataactet ttgaatgaac tggagetttg
                                                                         540
 tgaattncct ttttntcctc agatcataag gtagaaaaaa attcctttta acaaaatagc
                                                                         600
 attettatee acceacette tgatecaggg gagtacactg ggtattgace teaggaaaga
                                                                         660
 gaacaaggga gtgagggtac aggaaatgtt aggagtgtga gcttgaagac aaagacgacc
                                                                         720
 caactggcaa agacagcagt tgtcaatcag agcagatgaa tcatcacatc agcaaatatt
                                                                         780
 cattatatat ctgctcaata ataagaaaag cttctaccaa aggccaatgc tccagacctc
                                                                         840
 teccegaace tecagattea ettacecace tgeetacece ageaatgtae agageatege
                                                                         900
ctcgtgccga attcgatatc aagcttatcg ataccgtcga cctcgag
                                                                         947
 <210> 21
 <211> 1685
<212> DNA
 <213> Homo sapiens
<220>
<221> SITE
<222> (396)
<223> n equals a,t,g, or c
<400> 21
gcaaagatca cggttatggc aaggttagtt tctggtgggg atgctcttcc ttacttgcag
                                                                         60
aagcccacat tottgctgtg toatcacatg gtttttcctc tgtgcttgtg cacttgtctc
                                                                        120
ttcttcttat caggacaaca atcctattgg tttcaggcct gagccttata accctattta
                                                                        180
atgttaataa cctttgtaaa agccctatct catatcacat tgggggttag agtttcaacc
                                                                        240
tatgcatttt ggggacacaa tgtagtctat atcaccttgc cttatccttt gccacttaga
                                                                        300
tcatcacatg gtcgatgcct tttcattact caggtgttat tctaatatca ttccttggag
                                                                        360
agttctccct caactattgc ttaatcacag tgtatngtaa ctctacagga catgtctgac
                                                                        420
cctgttcact catcactaaa attactatat acaaccagaa ttgtgcttga cacatataat
                                                                        480
gaagcattga gaaaacattt gttgaataaa tgttttcttc taatactggt ttatgggcat
                                                                        540
aactatttct gaatgtgtcc tttctcaaag gtagacacct gagctttatg atccatggtg
                                                                        600
ttatcctaaa aaacagaaca caatattatt atattaagta taccactgaa tatagcaatt
                                                                        660
ggtgtcttga ggagttacaa catgtcattm tttawatagg ttatcatatt ttttccagta
                                                                        720
atcaccccag ctatattaaa atgaaacttc tccccttttt ctctctaggt agcatcttcc
                                                                        780
ttgactcttt cttagacaga tgctataact tttcagctac ttgagttatt agtttatttc
                                                                        840
attatttatt gattttaaaa tgccaatctc aaattatact caaaggtttt tctacatttc
                                                                        900
ccatctgtga tgacagctct tatagcttta arartactag gttgtgggtg ggcttcaaga
                                                                        960
catctctttt cactcccact totagatgcc agctccatct gtgatatgac aagagcgggt
                                                                       1020
aaatatette ttaettgaet caateagatt geagtettet ttteettggt tgttgettet
                                                                       1080
caggetgaca ettactetag atgteetetg catggttggg etcetaatte etgtaattet
                                                                       1140
gaatggtctc cakgtactty cttttagaat cacctaagag gtgttccact tcttgggtca
                                                                       1200
ctgaaagagg ctggtcaaga ttcaaatcca cttatttaat cactttattc ttggttaaaa
                                                                       1260
tccaacaaag actgatccta gcataccttt tctttgtttt ctgcctgaat gagtattagc
                                                                       1320
aggccagctt gagcacagca gcattattta catccatcat gcccaagagt agttcatatc
                                                                       1380
cttgcttcat caaataggag gacaagttaa ttaccagaat tccttatctt agcacctcca
                                                                       1440
tctctctgtt ggtcattgct ttcatgccgg ggcagcaata aagtatctgt ggatccaatg
                                                                       1500
cctcactaac tctttttgt ttctgagatg gagtctcatt ctgttgccca ggctggagtg
                                                                       1560
cagtggcgcg atcttggctc actgaaagct ccacctcctg ttttcaagca attctcctgc
                                                                       1620
ctcaacctcc tgggtagcct cgtgccgaat tcgatatcaa gcttatcgat accgtcgacc
                                                                       1680
tcgta
                                                                       1685
```

```
<210> 22
    <211> 1837.
    <212> DNA
    <213> Homo sapiens
   <220>
   <221> SITE
   <222> (48)
   <223> n equals a,t,g, or c
   <220>
   <221> SITE
   <222> (987)
   <223> n equals a,t,g, or c
   <220>
   <221> SITE
   <222> (1037)
   <223> n equals a,t,g, or c
   <220>
   <221> SITE
   <222> (1312)
   <223> n equals a,t,g, or c
   <400> 22
   cagcagagcc cagcgcggtg ctatcggaca gagcctggcg agcgcaangg acgcggggag
                                                                            60
   ccageggggc tgagegegge cagggtetga acceagattt cccagactag etaccactee
                                                                           120
   gettgeecae geeeegggag etegeggege etggeggtea gegaeeagae gteeggggee
                                                                           180
   gctgcgctcc tggcccgcga ggcgtgacac tgtctcggct acagacccag agagaaaagc
                                                                           240
   ttcattctgg aggggaagga gttttgagtg ccaaggatga aattccaccc atcactcggt
                                                                           300
   ctctgagctg caggacacag gcaggacaac gggagcacac tgccaggatg ggagctgctg
                                                                           360
   ggaggcagga cttcctcttc aaggccatgc tgaccatcag ctggctcact ctgacctgct
                                                                           420
   tecetgggge caeatecaea gtggetgetg ggtgeeetga eeagageeet gagttgeaae
                                                                           480
   cctggaaccc tggccatgac caagaccacc atgtgcatat cggccagggc aagacactgc
                                                                           540
   tgctcacctc ttctgccacg gtctattcca tccacatctc agagggaggc aagctggtca
                                                                           600
   ttaaagacca cgacgagccg attgttttgc gaacccggca catcctgatt gacaacggag
                                                                           660
gararctgca tgctggggag tgccctctgc cctttccagg gcaatttcac catcattttg
                                                                           720
   tatggaaggg ctgatgaagg tattcagccg gatccttact atggtctgaa gtacattggg
                                                                           780
   gttggtaaag gaggcgctct tgarttgcat ggamagaaaa aactctcctg gacatttctg
                                                                           840
   aacaagamcc ttcacccagg tggcatggca gaaggaggct atttttttga aaggagctgg
                                                                           900
   ggccaccgtg gagttattgt tcatgtcatc gaccccaaat caggcacagt catccattct
                                                                           960
   gaccggtttg acacctatag atccaanaaa gagagtgaac gtctggtcca gtatttgaac
                                                                          1020
  gcggtgcccg atggcangat cctttctgtt gcagtgawtg atsaaggttc tcgaaatctg
                                                                          1080
  gatgacatgg ccaggaaggc gatgaccaaa ttgggaagca aacacttcct gcaccttgga
                                                                          1140
   tttagacacc cttggagttt tctaactgtg aaaggaaatc catcatcttc agtggaagac
                                                                          1200
  catattgaat atcatggaca tcgaggctct gctgctgccc gggtattcaa attgttccag
                                                                          1260
  acagagcatg gcgaatatty caatgtttct ttgtccagtg artgggttca anacgtggak
                                                                          1320
  tggacggakt ggttcgatca tgataaagtw tctcagacta aaggtgggga gaaaatttca
                                                                          1380
  gacctctgga aagctcaccc aggaaaaata tgcaatcgtc ccattgatat acaggccact
                                                                          1440
  acaatggatg gagttaacct cagcaccgag gttgtctaca aaaaagscca ggattatagg
                                                                          1500
  tttgcttgct acgaccgggg cagagcctgc cggagctacc gtgtacggtt cctctgtggg
                                                                          1560
  aagcctgtga ggcccaaact cacagtcacc attgacacca atgtgaacag caccattctg
                                                                          1620
  aacttggagg ataatgtaca gtcatggaaa cctggagata ccctggtcat tgccagtact
                                                                         1680
  gattactcca tgtaccaggc agaagagttc caggtgcttc cctgcagatc ctgcgcccc
                                                                          1740
  aaccaggtca aagtggcagg gaaaccaatg tacctgcaca tegggggteg acgeggeege
                                                                         1800
  gaatcccggg tcgacgagct cactagtcgg cggccgc
                                                                          1837
```

```
<210> 23
 <211> 1095
 <212> DNA
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (720)
 <223> n equals a,t,g, or c
 <400> 23
 ggcacgagga atgggtgggt tttttttaag cagttattac ctcagcattt tgacatcaga
                                                                        60
 tatgcaaact taatggcgtt ttgttttttt atattctatt tgtattcttt ccccagtatt
                                                                       120
 tcccatgggg atctccacaa gtttggagtt ttttcctggt gcacacacgt gaggagattt
                                                                       180
 aaggtactat atgcaagtgt tttactaaaa agcactgaaa ttcttctggc aatacaagaa
                                                                       240
 ccattttcag gatcttggag ttacttcctt cttaatcttt cttaaagcat tcactgatgt
                                                                       300
 ttttgttttt tcaaaatgaa acaaaaatat cacattgaga agctagtcta tgttctgtca
                                                                       360
 ctaacattta aactttgcag actctaacaa aaagcacaag aggtcacgta ctattataca
                                                                       420
 aatttagegg tactggattt acctetgaca ttaacacact caggeagaga ccaggagtga
                                                                       480
 teageaggte tteagaacea aaaaacettt etgtteacat tteatetgat ttttaaactg
                                                                       540
 aggcaggett tgattettet gaaggatgee aagaateaaa etaagggagg acteaetgtt
                                                                       600
 aaagatgtgt tctgatgtct tatattaaga ccaratgtga catgatgtga ttatcttcca
                                                                       660
 gtactttgct tttaggtacc atttcatgac attttaggaa tgagtattgg aaaatataan
                                                                       720
 gaattagaaa agcagcactt tttttttaat ggaaaagtct tcggtccagt gttacacctt
                                                                       780
atagtgtaat tcagtcccta agcacagaat gaatgtctgg cctgcatatg gtagttacag
                                                                       840
tgtaacctct ggctgcagac cacacaggac aaccctaaca gcctagtctt gtatggtgta
                                                                       900
aatatcaaga gtacagcttc aatttcattt gctttatctt agcaacaatg ccaactcagg
                                                                       960
agagcagacg gccgatttca gtgaagtctg gtagtcaaca gatgttattt cagtctcagt
                                                                      1020
1080
aaaaaaaac tcgag
                                                                      1095
<210> 24
<211> 1039
<212> DNA
<213> Homo sapiens
<400> 24
ggcacgaggt tgttctgaga attaaatgag ttactacact taaggagttt agagcactgt
                                                                       60
tggcatgcag tgggcagtca aatgctggct attccagctg tgcatggatt ccagcttggc
                                                                      120
cagtettgga tgggetgaga aaagggaget getttteeet aaaagaceat eecaactgtg
                                                                      180
ctctaccaca ctttgctctc ctggctaaga ctcagagaca gatgtatgta tgcccctgag
                                                                      240
caatctcttt cccttctctg gatctcgatt ccttgcttgt ataatgacct ggtagtgtag
                                                                      300
gaccaatgtt gctgggtgcg gtggctcatg cctgtaatcc tagcactttg gaacgccaag
                                                                      360
cacgagaatc tettgattee aggtgtteaa gaccageetg ggeaacatag caagaceeca
                                                                      420
tctctaaaaa aaaaaggcag gcgtgatggt gcacacctgt agtcccagct actcaagatg
                                                                      480
ctgacgttgg gaggatcgct tgagcctggg agcttgagcc atgatcacac cactgtactc
                                                                      540
cagcctgggt gacagagagg gactctgtct caaaaaatga cccactagga ccagtgtcac
                                                                      600
tttcttttcc ctctaactgc ttaaagctgt gatgctcagt aggatagcca ctagccccat
                                                                      660
atggctattt caatttaaat aaattaaaat tttaatgcta tttcaattta aataaattaa
                                                                      720
aattttaatg ctattttaat ttaaataaat taaaattaag taaaatgaaa ttttcagttc
                                                                      780
attagtcaca ttagctatat ttcaactgct cagtggccat aggtggctag tggctcccat
                                                                      840
agcaagtggt acagatgcca ggacatttcc atcattgcag aaagttctat taaacaggct
                                                                      900
ggcatggtgg ctcatgtctg taaccccagc actttgagag gctgaggggg caggatcgct
                                                                      960
tgaagctagg agttcaagac cagcctgggc aacaaagtga gacccccatc tctacaaaaa
                                                                     1020
aaaaaaaaa aaactcgag
                                                                     1039
```

<222> (27)

```
<210> 25
    <211> 1076
    <212> DNA
    <213> Homo sapiens
    <220>
    <221> SITE
    <222> (910)
    <223> n equals a,t,g, or c
    <220>
    <221> SITE
    <222> (912)
   <223> n equals a,t,g, or c
   <220>
   <221> SITE
   <222> (958)
   <223> n equals a,t,g, or c
   <220>
   <221> SITE
   <222> (1038)
   <223> n equals a,t,g, or c
   <400> 25
   aattoggcac aggaaaataa tttaćaatga actggtgttt gtgcataata tctctcacca
                                                                            60
   ccctcctctc catcccagta cacattgttg gtgaggaaaa agacatgctt aagtgcacat
                                                                           120
   tctgtctcct aaacactctt aagaaatgtg ttgtatggaa gagattatat cataatggtg
                                                                           180
   gagcaaataa cctgtaattt tgttctagtg ttaactgcct ccattttagg ggttgagttt
                                                                           240
   ctactccttt tccatgatct cttctcttgc tgtttaaaaa atgatttcac agagtaaagg
                                                                           300
   tcagagtgcg ttaaaatgct tttgtatgaa gacctagcaa atacaagacc tgcttggctg
                                                                           360
   attgcttatg gttggaagtg actcatctaa gcacaggagt gtgaggttta tggcttagaa
                                                                           420
   cgtaagatac cagcctctgt agtggccaaa taagccggcc tttttgtttg ttattacaga
                                                                           480
   tgggttttga tgtcaaggtc aactgagttt tgagttgtcc ataagatgga cagaacatct
                                                                           540
   gcatataaca ccaactgaat gaacccccag tttgtctagg gctttgataa aaaatttggc
                                                                           600
   cctctagacc gggcgtggtg gctcacacct ataatcccag cactttggga ggccgaggtg
                                                                           660
   ggaggattgc ttaaggtcag gaatgcaaga ccaacttggt cttgtagtca gtgtagtgag
                                                                           720
  accccatctc taccaaaaaa aaaaaaaaaa aactcgaggg ggggcccggt acccaattcg
                                                                           780
ccctatagtg agtcgtatta caattcactg gccgtcgttt tacaacgtcg tgactgggaa
                                                                           840
   aaccetggcg ttacccaact taatcgcctt gcagcacatc cccctttcgc cagctggcgt
                                                                           900
   aatagcgaan angcccgcac cgatcgccct tcccaacagt tgcgcagcct gaatggcnaa
                                                                           960
   tggcaaattg taagcgttaa tattttgtta aaattcgcgt taaatttttg ttaaatcagc
                                                                          1020
   tcatttttta accaatangc cgaaatcggc aaaatccctt ataaatcaaa agaata
                                                                          1076
   <210> 26
   <211> 860
   <212> DNA
   <213> Homo sapiens
  <220>
  <221> SITE
  <222> (15)
  <223> n equals a,t,g, or c
  <220>
  <221> SITE
```

```
<223> n equals a,t,g, or c
   <400> 26
   acaaaagctg gagenceace geggtgnega eegetetaga actagtggat eeeeeggget
                                                                          60
   120
   ggaagcgaag agtcagcctt ggagagagca ccctggggcc tccgtgtcgg ggtacaccca
                                                                         180
   gcactttgcg acctgcggcc cagcaggcgc ggaggatggc ggggaggaag ccagcagccc
                                                                         240
   ctgtgtttac tgtcgtcaga aaggtcttgt gttttggttt tggggttttt gttttgt
                                                                         300
   tgttttgttt ggcttgtttg ttttttaagg ggaaaaaagt ttgtaattat ttcatccaaa
                                                                         360
   tctcccgtta tatatctgtg aataataaga gattttataa tagcaagaaa atgatgtata
                                                                         420
   ttttagtttg ttgacaaata agtcatcatg atcacgaagg acactgagaa aaaataattt
                                                                         480
   agaaccctgg tttttgtgaa wttttttgtt ttgtgtttct ttgttttgag atttgtgttt
                                                                         540
   ggtttggttt ttgcactgca ctaaggcagg agggttggag ggctgggtgc agcctgggag
                                                                         600
   tccgatggtt ttcagcagga gacggggtgt cccctgcagg gggctaaact gcaggggcct
                                                                         660
   gagattaget gtgaacatgt gggageeega tgeatgtggg teagggatet gggggeeeee
                                                                         720
   ccagctggcg ggaaccccaa atggacacaa actgtacatt tgccaatggg tttttttcag
                                                                         780
   accatggttt ttacttgcaa ataaacctga gttcttttct gcaaaaaaaa aaaaaaaaa
                                                                         840
   actgcggtcc gcaagggaat
                                                                         860
   <210> 27
   <211> 776
   <212> DNA
   <213> Homo sapiens
   <220>
   <221> SITE
   <222> (2)
   <223> n equals a,t,g, or c
   <220>
   <221> SITE
   <222> (13)
   <223> n equals a,t,g, or c
   <220>
   <221> SITE
   <222> (61)
<223> n equals a,t,g, or c
  <220>
  <221> SITE
  <222> (79)
  <223> n equals a,t,g, or c
  <220>
  <221> SITE
  <222> (101)
  <223> n equals a,t,g, or c
  <400> 27
  tnttggcccc atngatttta ccgcccaaag cttcttaatt acggactcca cttattaggg
                                                                         60
  naaaagcttg ttacgcctng caaggtaccc ggttccggaa nttcccgggt tcgacccac
                                                                        120
  ggcgttcgag ggctcctttc tcttgcctgg aggggaaaac agaagattct ggcttgagct
                                                                        180
  tecetcatge tgeectattt taagtggete etecacetgg tgaggetgte etttgtetet
                                                                        240
  etggettete catgggacag cacagetgge ettggeetga ageteectaa catetatggg
                                                                        300
  atgacatcta tgggatggga tccctcacct ggggccaggg gaggggttgg cacagagaag
                                                                        360
  cgatgagatg ggtctccaag gccaggtctc ctttcatcct gagcaaaggg ctcagggcta
                                                                        420
```

tgaaatgatc caagacatga aacaaatatt aaatataaaa atagagtcca aaggccaggc

```
gcggtggctc atgcctgtaa tcccagcact ttgggaggcc gaggtgggtg gatcacgagg
                                                                            540
    tcaggagatc gagaccatcc tggctaacat ggtgaaaccc cgtctttact aaaaatacaa
                                                                            600
    aaaattagcc aggtgtggtg gtgggcgcct gtggtccctg ctactcggga ggctgaggca
                                                                            660
    ggagaatggc atgaagctgg gaggtggagt ttgaggtgag ccgagatcac gccactgcac
                                                                            720
    tecageetga gtgacagage aactecatet caaaaaaaaa aaaaaaggge ggeege
                                                                            776
    <210> 28
    <211> 1074
    <212> DNA
    <213> Homo sapiens
    <220>
    <221> SITE
    <222> (1063)
   <223> n equals a,t,g, or c
   <220>
   <221> SITE
   <222> (1067)
   <223> n equals a,t,g, or c
   <400> 28
   ggcacgagcc aaattcagta gtaacagtaa attactaagg tgttttctct cttcattaca
                                                                            60
   gatacgtaat tcacctctgg gacctcaacc acgaagggac gtgggaagga aaggggacgt
                                                                           120
   atgtctatta cacagacttt gtcatggagc tcactctcct gtccctggac ctcatgcacc
                                                                           180
   atattcacat gttggtaagt ttcctcagaa ggagctctaa cagagggcaa gcctttcaga
                                                                           240
   atcaggaaca gtaatggttt cttcattaaa aaatgaaact ttagaaataa gatgtggatg
                                                                           300
   gactacttaa agactaaaaa tgaatgtggc tgcaaaccct ccctctttt gccactgggt
                                                                           360
   gtaaggcagt gccatggaac tgctttggct ggtgcctaac tcaggaggtg tttgctgtcc
                                                                           420
   tgggagactt agttaactct gctgaccaag tcaatagatt attcttttag catgaaatta
                                                                           480
   aggagetgee ttteeceata gtttetatgg etttaaatat ttageaggta etttgtaggt
                                                                           540
   ggtaatggga attcctgcag tgttagctac ttcacagatt tatacatttt ccatctttgt
                                                                           600
   aattaaaaaa agtotttaca ottaattoot acattootac taccatcatt gtttacattt
                                                                           660
   tactttggta tgttagacgt tacggtgtcg tagatctgcy tcattggktg gcccttcagt
                                                                           720
   gatctaataa tggtgagaat taaaatagtt ggtgggcaat ttawttaaat tataagccta
                                                                           780
   gcaagtagca ttttaaaawt attgggctag acgtggcmca tttctaagtc tactttttga
                                                                           840
   aagaaacttt gaaaacatac tttttaaaga aagtatgtaa ttctttttt taaaaaagag
                                                                           900
   cctcggctgg acgcggtggc tcatgcctgt aatcccagct actggggagg ctgaggcaga
                                                                           960
gaattgcttg aacctgggaa atggaggttg cagtgagctg agatcgcgcc actgtactct
                                                                          1020
   atcctgggcg acagggtgac actccgtccc aaaaaaaaa aanaaanact cgag
                                                                          1074
   <210> 29
   <211> 2749
   <212> DNA
   <213> Homo sapiens
   <400> 29
   gccgctcagt gccctggaca ggagatgctg tgttaaactg ttaatggata tctatatgag
                                                                            60
   aagctcattt ttgtatgcta tccctgcagt ttttttttt ctaacaggcc catgtttgag
                                                                           120
   aataaacaag totgtgatgt cagagacaaa ggtgtattot toagtotgca ggtgtgtggc
                                                                           180
   acctcccttc tcccctgcag ccccccacat ccagagccgt tcctgagagt gacatcatgc
                                                                           240
   atcaagaaaa cataaccttg gtcctcaggt gaacccttgg aacattctgt gaccgcctga
                                                                           300
   tgtccattct gagccacctt ggcacacatg cttacaggsa gcactgctaa gggttcaggt
                                                                           360
   gccccatggc tgacagcccg agttgcttct gtggaccatc atgccgctcg gcacgtcctg
                                                                           420
   agacagaagt tgctgcagga aggagcttct ggagaggtcc tgtggcatgt gtgggggtgt
                                                                           480
   gtgtgtgtat gtttccttct tgaacagaca ttccaacttt agatgtgttt atagaactga
                                                                           540
   cctttttact aacaaaatac aatgatatat gttggaaact acttaatatg cttttcctgc
```

```
acaccttage aataactgta ggggtctctg ctagagttgt ttgtatgtac agcaattttg
                                                                       660
 aacaaattgt tttaaatgta atataagaga attagtttaa ggaagtaaag agaatcattt
                                                                       720
 gcttgtgtta_cattttcagt gaggattcag tttaagagtc attcttagga cttccatttc
                                                                       780
 ctaatattta ttcatgggta atgmagaaat ggtttgcatt ttgtggccag tcctaattta
                                                                       840
 ttttccaget gagccctaac ttccggctcc cacctacctc cacggacttc ctaacagaga
                                                                       900
 cttatgaata ccaggatgtg tttttgttaa gtcaggttca attcgttgcc cctgtcagtt
                                                                       960
 ttatagagtg tgagggtcac tccattaaag atctctcctg ggtggatcct acttggatgt
                                                                      1020
 tcaggtgatt ttgaaaactg ctaacatttt taaaaggcta gaacatcctt tgacttcttg
                                                                      1080
 aaaatctgca tgtctggctt gggttttatt accacatgcc tgagttcttc aagaatggaa
                                                                      1140
 ggctcaagta ttctcatctt ccatttgcca aacttccttc ctgatttgag tcacgtgttc
                                                                      1200
 cacttggaaa gaaagggaac agagagcctc ctccatggac agtgtatgaa tttcattggg
                                                                      1260
 aatettgete tetecegeet etatgeettt etetettttt aacettaett tacataatat
                                                                      1320
 tatagatggg ccaagaaaag aaaagatgac ataacatttt gatgaatttc acctattcca
                                                                      1380
 ttcttcacgt ttcagaattg gtcgactttg ttagaagata attgaagtag ccttgggtca
                                                                      1440
aaagcaacct tttcaattgt gatcatacct aaaacatata aaaaccctgc cgtagattaa
                                                                      1500
aagcaattat aaaatcataa aattgaatgt ttgcagaatc ctggagcagt agatttcttt
                                                                      1560
gtetttggcc tgcggactag aaagaggca gcagtagtat gctggagctt ccctgggata
                                                                      1620
ccagccacat ggtttctttt cattagatct gatttttgtt tcccactgta gatctgattt
                                                                      1680
tgtagttgaa aacatttcac caccatcaaa cactatttct gaatattgtg cctttttata
                                                                      1740
cctagcctag atgaaaaccg atgccattct tattcagaaa atccccccat cctacatgac
                                                                      1800
tgttatctag acataaagca aagtgcattt aattcaaaat ttggttcaca atataagtat
                                                                      1860
tttgtaaaag ccagctgaac cagcatttta tcaggtggaa atctctgcaa gccaaattgc
                                                                      1920
tgatactcct tcatgcagat caacttggtg tcccagtcag aatagaacag cataattacc
                                                                     1980
tggagttagg gggagtattt ctgcactatt acttgtcagg gagagaagaa acttagaatt
                                                                     2040
gtccctcaaa ggagtgtcaa gaagtatgaa taaatgtcct ttcaccagct cacaggccag
                                                                     2100
aaatggagga cccaagtcaa ctaggtgaaa ctactagcag acccagcttt cccataataa
                                                                     2160
cctaatctgc aaattgttct attaaagtct cattgttttc aggatgcaat gaaagtggat
                                                                     2220
ttcaaaaggc tttggaaaaa taagtggaac atgactgatc ttgaaaaaaa aagcaaaagc
                                                                     2280
ttaaatattt gatacaagtt tacttagcta caacatactt tacattgttg cctttagtta
                                                                     2340
tctcacaggc actgacattt tatatttaga aaatactttt aatctttcta atctttttt
                                                                     2400
gtaaatatta gtgtccattc tgtatgactc gctaacctac tttgcaaggc tttgggcaac
                                                                     2460
attttagctc attaacttca agatgatgtg tcatctgtat aggtcaaaga atgggacttc
                                                                     2520
tgaactgagg aatttgctgt tgacagccaa agtatagtgt acaagattga tgtaacttga
                                                                     2580
tatgtatttt tgttgaagtt ttttgtaaaa aaaaattatt tacaatgtta tttgaatgat
                                                                     2640
ttttttaaat getgtgaate tatatttgtt gttttttata ttaaaattca tttgccaaaa
                                                                     2700
aaaaaaaaaa aaaaaaaaaa aactcgagac tagttctct
                                                                     2749
<210> 30
<211> 604
<212> DNA
<213> Homo sapiens
<400> 30
gcaattttaa tatagtcaaa catttattag aagcagaaaa gtcattgtar agcacttgaa
                                                                       60
ttatatttaa aagtttagcg gtctaaacta gcaatctaag atgattgtga aataaaggca
                                                                      120
180
gctgcgctaa caaatggcct gcagatcttg gtgctttaca ctactagcaa atgtttcttt
                                                                      240
tacgettetg etgeetgtee aetgggggte ageagaggee gtettetetg teageateae
                                                                      300
tetaggatge eggecaceca geageetete tgtgecacte ageagaggga gaagagacet
                                                                      360
ggggagccac gtgctggctc ttgttgcttc tctttggaag tgacaccgtc actttcacat
                                                                      420
atgtttcatc agccagagaa agtcagctat ggctggctca atagagccag taagtctaat
                                                                      480
cctcctgaag cagaagctct gcagagagag gagccaaata tactgaacat aatacagtag
                                                                      540
acaagagaat gtgtgtgact ctgaaaccat taagggagta aaaaaaaaa aaaaqqqcqq
                                                                      600
ccgc
                                                                      604
```

<400> 33

```
<212> DNA
   <213> Homo sapiens
   <400> 31
  · ggtgagctgt gatcgtgcca ctgcactcca gcttgggtga cagagcaaga ccccggaccc
                                                                           60
   tgtctcaaaa aaaaaattcc ccagttctca gggtgtggta gaggccgagt cagtcatggc
                                                                          120
   tgagacaagg ggactgtgct ctgtgtgctt ctgtgccctg tgtttatatg gttcatacgc
                                                                          180
   tgcctgtcca ccatgttttt cccgagagcc tcggcagcgc aggcatcatg qqaatqactg
                                                                          240
   ggtcaggtgg aaattcagag gccctgccct ggtgggcaga gaagcctggc ttacctccca
                                                                          300
   agcacagcat gtgtgtggat cacttctgtg cactgtctcc tcatctccaa aatgggagtc
                                                                          360
   ataactgaac tcacctcatc aagttgttat gagatgatgt agattcagcg aagtagcaag
                                                                          420
   agtaggagtt tgggctttga taacagagag aagtgagttt ccatctagat tctcccctt
                                                                          480
   tgtcactttt ggcagttggc ttcacctctg tgggcctctg ttatgtcatc tgtaaaatgg
                                                                          540
   gattaaccct aaaagccacc ctcacagggt cattgtgagg attgcacaag gtgatgcaag
                                                                          600
   tggcacaggg tctggcccag gagaggggc tggaagagag cgagctgcca ttgtattttg
                                                                          660
   gttgctgtgg atctaaggag aagagatgtt taggagtctt tccctggcat ggttcctcct
                                                                         720
   gccttcaccc atcactcttt tcctcgag
                                                                         748
   <210> 32
   <211> 943
   <212> DNA
   <213> Homo sapiens
   <400> 32
   cctaaatgca aacattttca tttaaatgtc aagcccatgt ttgtttttat cattaacaga
                                                                          60
   aaatatattc atgtcattct taattgcagg ttttggcttg ttcattataa tgttcataaa
                                                                         120
   cacctttgat tcaactgtta gaaatgtggg ctaaacacaa atttctataa tatttttgta
                                                                         180
   gttaaaaatt agaaggacta ctaacctcca gttatatcat ggattgtctg gcaacgtttt
                                                                         240
   ttaaaagatt tagaaactgg tactttcccc caggtaacga ttttctgttc aggcaacttc
                                                                         300
   agtttaaaat taatactttt atttgactct taaagggaaa ctgaaaggct atgaagctga
                                                                         360
   atttttttaa tgaaatattt ttaacagtta gcagggtaaa taacatctga cagctaatga
                                                                         420
   gatatttttt ccatacaaga taaaaagatt taaccaaaaa atttcatatt tgaaatggaa
                                                                         480
   gtcccaaaac ctaggtccaa gttcaatagc ttagccacat aatacggttg tgcgagcaga
                                                                         540
   gaatctacct ttccacttct aagcctgttt ttccccccat aaaaatgggg ataatacttt
                                                                         600
   acaaggttgt tgtgaggctt agatgagata gagatttatt ccataagata atcaagtgct
                                                                         660
   acattaatgt tatagttaga ttaatccaag aactagtcac cctactttat tagagaagag
                                                                         720
  aaaagctaat gatttgattt gcagaatatt taaggtttgg atttctatgc agtttttcta
                                                                         780
aataaccatc acttacaaat atgtaaccaa acgtaattgt tagtatattt aatgtaaact
                                                                         840
   tgttttaaca actcttctca acattttgtc caggttattc actgtaacca aataaatctc
                                                                         900
   943
  <210> 33
  <211> 1293
  <212> DNA
  <213> Homo sapiens
  <220>
  <221> SITE
  <222> (184)
  <223> n equals a,t,g, or c
  <220>
  <221> SITE
  <222> (208)
  <223> n equals a,t,g, or c
```

```
gccgccgggg gacgcggacc caaacgccgc tcaccgcttg cggcgccggg catggggagt
                                                                          60
 gtggtgtgag cccgcacccg gggaggacgc aggagctgcg gagacgggcg cgaggaggag
                                                                         120
 gagaggagtc gtggattgga aggacccgag ggagggaggg tggggaagcg agggaaagt
                                                                         180
 gaanctggga ggagaaggcg gcggaagntg gagattgatg cttctgtttt ttgttgccgc
                                                                         240
 tgctgccctc gcgctgggag ccgagccgga gggaaggcgg tggagagatg attgcagagt
                                                                         300
 tggtgagcag cgctctgggg ctcgccttgt atctcaacac cctgagtgcg gatttctgct
                                                                         360
 atgatgacag ccgtgctatc aagactaatc aggaccttct cccagaaact ccatggacgc
                                                                         420
 acattttcta caatgatttt tgggggactc ttctaaccca cagtggcagc cacaagtcct
                                                                         480
 accggccact ctgcactctt tcttttcgcc tgaaccatgc cattggaggg ttgaatccct
                                                                         540
 ggagctacca tcttgtcaat gtcctgttgc atgcagcagt cactggtctc ttcacaagct
                                                                         600
 tctccaagat cctccttggt gatggatact ggacattcat ggctggcttg atgtttgctt
                                                                         660
 ctcaccccat tcacacggag gcagtggcag gaatcgtggg acgagccgat gtcggggcca
                                                                         720
 gtctcttctt tctcctctcc ttgctctgct acattaaaca ctgttctaca agaggctact
                                                                         780
 cagccagaac ctggggctgg ttcctggggt caggactgtg cgcaggatgc agcatgttgt
                                                                         840
 ggaaggaaca aggagtgact gttctcgcag tttcagcagt ttatgatgtc tttgtctttc
                                                                        900
 acaggctgaa aataaaacag atattaccta ccatttacaa aaggaagaac ttgtcgcttt
                                                                        960
 tectaageat tagttigtta attitetggg gtteeteet titgggtgee eggttataet
                                                                       1020
 ggatgggaaa caaaccacca agcttttcca actcggacaa ccccgctgct gattcggaca
                                                                       1080
gcctcctcac ccgcactctc accttcttct acttgccaac caagaacctc tggctgttgc
                                                                       1140
tawgtccaga taccctcagt tttgaatggt caatggatgc tgtgcctctg ctcaaaacag
                                                                       1200
tttgtgactg gagaaaccta cacactgtgg gccttctawa atgggactcc ttctccttgg
                                                                       1260
cctaactaag ggtttgaara agcccgaggc gtt
                                                                       1293
<210> 34
<211> 1699
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (9)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1692)
<223> n equals a,t,g, or c
<400> 34
ggcatcttnt atttagcaca atgtttttaa ggtttattca tgttgtagca aggtacgcaa
                                                                         60
ttgtttttca tttaaagaaa aagtctcaat gctattacaa ttttccatat tctttgcacc
                                                                        120
tgtggtctgt ctccctaaat atagcccctt tatgaaggag gaatgcaaag ctgatccaac
                                                                        180
tagagactac aaattccttt atatttatat agaaaggggc acatagtaat gaattggaag
                                                                        240
ccatatccaa gctagaatca tctagattta gtgagattga ctagtgcaac ccaattttt
                                                                        300
gcactcatcc cctgtccatc aggtacctgg aaatgattry aawgattttg aactaggtta
                                                                        360
ctggtataat catactgctg ttgagattag caggcaaatt accaagttag ttttttattg
                                                                        420
gagggggaga ggtcaatgtg tgagggtgca tagtggagac tggggaccag gctgacaaag
                                                                        480
atgaattgtt ttaggtagtg atgactttga ggtaatggga taagtgagtg aaaatgactg
                                                                        540
gttggcgttg gagatgggat ggagatggag cttggagaaa aagaatagca ctagtaaatg
                                                                        600
gatttagcta gacaaaggag atttacccta ttccatttag cacagtgagg agaggctaga
                                                                        660
cagctaggat gcaataaaaa aaattttaat gagaaatgtg tgtggtagat taattttatt
                                                                        720
aatctcaagt tatagattaa aaaatttaag taccacataa atgccatttg cctttgctaa
                                                                        780
tgttacattt ttatgaagaa ggagccttgc ataaagaatg atataatgga cttttgggac
                                                                        840
ttgagggaga agcttgggag ggggggtaaa ggataaaaga catattgggt gctgtgta
                                                                        900
cactgcttgg gtgacaagtg gactaaaatc tcagaaatca ccactaaaga acttatctac
                                                                        960
```

ataaccaaaa atcacctgta ccccagaaac tattgaaata aaaaaaaaga aggggacttg

gacagatagc cgtattcttt gccaaattat agttacattc tgctcatggg ggattaggag

gttcaatgga agaaaggccc cactcagctt tctcccctct taaaatgttg ccttgtaaat

1020

1080

```
tagggaattt tgcataaagc tctgaccttt acttccaagg cctttactga gaatgggttt
                                                                       1200
    ggatacttgg agatagatcc tgactcccta tccctcctag atctttattt atcctatttg
                                                                       1260
    gaacccaggg aaatggcctt aaagctgatg aaccacaggg tgtccaagtc atggagctat
                                                                       1320
    tgaggttctc cccaagtatc ttttaaattg ctgcatttgg gatgggcgca gtggcttaca
                                                                       1380
    cctgaaatcc cagcactttg ggaggctaag ttgggaggat tgcttgggtc tgggagttta
                                                                       1440
    aggccagcct gggctagatg gtgagcctct gtctctattt aagaaaatta gaaattagcc
                                                                       1500
   aggcatggtg acacaccage tacttataat getgaggeag gaggateact tgageceagg
                                                                       1560
   agtttgcggc agacagtgag ctatgattgt gccactgtac tccagcctgg gtgacagagc
                                                                       1620
   1680
   ccaatcgcct tncatgatg
                                                                       1699
   <210> 35
   <211> 1820
   <212> DNA
   <213> Homo sapiens
   <400> 35
   ggcacgagaa ggaatgagag ataaagaaag agacaggtga catctaaggg aaatgaagag
                                                                         60
   tgcttagcat gtgtggaata ttttccatat tatgtataaa aatattttt ctaatcctcc
                                                                        120
   agttattctt ttatttccct ctgtataact gcatcttcaa tacaagtatc agtatattaa
                                                                        180
   atagggtatt ggtaaagaaa cggtcaacat tctaaagaga tacagtctga cctttacttt
                                                                        240
   tctctagttt cagtccagaa agaacttcat atttagagct aaggccactg aggaaagagc
                                                                        300
   catagettaa gtetetetgt agacagggat ecattttaaa gagetaetta gagaaataat
                                                                        360
   tttccacagt tccaaacgat aggctcaaac actagagctg ctagtaaaaa gaagaccaga
                                                                        420
   tgcttcacag aattatcatt ttttcaactg gaataaaaca ccaggcttgt ttgtagatgt
                                                                        480
   cttaggcaac actcagagca gatctccctt actgtcaggg gatatggaac ttcaaaggcc
                                                                       540
   acatggcaag ccaggtaaca taaatgtgtg aaaaagtaaa gataactaaa aaatttagaa
                                                                        600
   aaataaatcc agtatttgta aagtgaataa cttcatttct aattgtttaa tttttaaaat
                                                                       660
   tctgattttt atatattgag tttaagcaag gcattcttac acgaggaagt gaagtaaatt
                                                                       720
   ttagttcaga cataaaattt cacttattag gaatatgtaa catgctaaaa ctttttttt
                                                                       780
   tttaaagagt actgagtcac aacatgtttt agagcatcca agtaccatat aatccaacta
                                                                       840
   ccatggtaag gccagaaatc ttctaaccta ccagagccta gatgagacac cgaattaaca
                                                                       900
   ttaaaatttc agtaactgac tgtccctcat gtccatggcc taccatccct tctgaccctg
                                                                       960
   gcttccaggg gacctatgtc ttttaatact cactgtcaca ttgggcaaag ttgcttctaa
                                                                      1020
   teettattte eeatgtgeae aagtettttt gtatteeage tteetgataa caetgettae
                                                                      1080
   tgtggaatat tcatttgaca tctgtctctt ttcatttctt ttaactacca tgcccttgat
                                                                      1140
   atatettttg caccegetga actteattte tgtateacet gacetetgga tgccaaaaeg
                                                                      1200
   tttattctgc tttgtctgtt gtagaatttt agataaagct attaatggca atatttttt
                                                                      1260
getaaacgtt tttgttttt actgtcacta gggcaataaa atttatactc aaccatataa
                                                                      1320
   taacattttt taactactaa aggagtagtt tttattttaa agtcttagca atttctatta
                                                                      1380
   caacttttct tagacttaac acttatgata aatgactaac atagtaacag aatctttatg
                                                                      1440
   aaatatgacc ttttctgaaa atacatactt ttacatttct actttattga gacctattag
                                                                      1500
   atgtaagtgc tggtagaata taagataaaa gaggctgaga attaccatac aagggtatta
                                                                      1560
   caactgtaaa acaatttatc tttgtttcat tgttctgtca ataattgtta ccaaagagat
                                                                      1620
   aaaaataaaa gcagaatgta tatcatccca tctgaaaaac actaattatt gacatgtgca
                                                                      1680
   tctgtacaat aaacttaaaa tgattattaa ataatcaaat atatctacta cattgtttat
                                                                      1740
   1800
  aaaaaaaaa aaaaaaaaa
                                                                      1820
  <210> 36
```

<211> 2572

<212> DNA

<213> Homo sapiens

<220>

<221> SITE

<222> (13)

```
<400> 36
    atteggeaca ggntagggtg ggggeagttt agtteecaat ggatatttet ggtttttgea
                                                                            60
    gaaaaagtag gaaagggaag tgggatggtt tacctctttg tcaggaaagt taggtaacta
                                                                            120
    ttagtaaaaa acaattatac actttaaaat cctgcaatta ttttacagaa agcactaaaa
                                                                            180
    ctgcatgcat gggaagatca ctccatttca gatgtatttg ttacacagta tcttgtttat
                                                                            240
    gctgtgctta gtaggcatgg ttgaattcaa taaaagcaca cgtgaatgca ttttatttaa
                                                                            300
    gacactatgg ctaataccac tgtttacata taaactggcg tatctatgtg agaaactcaa
                                                                            360
    gtttgtgaaa ttctgtgcat ctttgctaat tgctgtgttt gatcattgac atttctgaca
                                                                            420
    tgccacatgg gcctgcgggg ctgtcatccc ctggggctga caactggtac tcggcccgtc
                                                                            480
    cttgtaatcc agcagtattt tttcatacat ttgaaacatt tagaggaaaa ttcagtaatt
                                                                            540
    gaataatgtt tgtaaatatt ctgatcgaaa atgaaaaaat tccccttaat gaaacctgaa
                                                                            600
    ctctgcttct gattagctta tatgacttaa agcttcactt cagttccctt gaaaccatta
                                                                            660
    catcttttat aaaatgaaag cactaagcaa tccctaaggt ttttctcaac atgttgggaa
                                                                           720
    gccaatttta ttttatagca taatgtgttt attcttactt gatcatatct tttttttca
                                                                           780
    raaacacaga aaaagaaagt gettggtcac etecteecat agaaattegg etgattteee
                                                                           840
    ccttggctag ccccagctga cggagtcaag agcaaaccaa gaaaaactac agaagtgaca
                                                                           900
    ggaacaggtc ttggaaggaa cagaaagaaa ctgtcttcct atccaaagca aattttacgc
                                                                           960
    agaaaaatgc tgtaatttct tgggaagatt ttaatgtaca cctatttgta aagtcatcag
                                                                          1020
    aatagtgtgg attattaaat atctagtttg gaagaaaata atttatataa attattgtaa
                                                                          1080
   atttttatgt aaacagaagg tetteaataa gtaaagtaac teeatatgga gtgattgttt
                                                                          1140
   cagtccaggc aatttttcta ttttatatta agacttcata catttatata tgtaaatatg
                                                                          1200
   gcttattaat ggaatgttaa ataaaatgta tacttcacag tcgtttgtgt cttggatttt
                                                                          1260
   tgaaagggag gggatatctg tttaaatagt tttatatgct cattggtctc attttctcta
                                                                          1320
   taattaaaat actagaccag tottaaaatg gggatgattg aagtattgat atttotttt
                                                                          1380
   acagttacta ttttataatt tatgcacttt gattctgtga ttcagatttc taatcagaaa
                                                                          1440
   atgtattttt ttgtttttgg ctgttactat gttaaaattg aattatgggc atgtcatttt
                                                                          1500
   gccatctttg tagtttcaca aattttgtgt aatctacctc aaatgaataa tccaagtatt
                                                                          1560
   ggttaactat aatgttggca tctcttattc ggcaagctta aaggctcttt aaagtcttaa
                                                                          1620
   ttagtcaaag actaatccag gttagattga ccggttcact gctcacttgc aaccttatca
                                                                          1680
   aagggtttga caaagggaaa tgtaaaataa atctgtttat ggatattgag tgcatcttgt
                                                                          1740
   atgtgcctaa tattgatagg atgagatgtc tgaacaaatt tttataatat tgctgtgaag
                                                                          1800
   gagettgeta ttgaaccaca gaaatcesty aatatteagg ttttaaaact ggeaaattet
                                                                          1860
   cacaggacct caggcacaga ttattgaggt tgggagagag tgagtagatg tagaaaagga
                                                                          1920
   gaaaaacaac acacgccctg ttctctacag tacaactgtg tgcaattaag caatggtact
                                                                          1980
   tgatgtaggc tctaacactc atcaataaat aagtgttgta aaataattta taacaggtaa
                                                                          2040
   tcgatagtgt gtaatgaatg gactattaat aattgattat ctagaaacga actgctttcg
                                                                          2100
   tgggctttta atattttaat gtgaagcata tgcagtgtgc tttctgcatt tattttycta
                                                                          2160
ccaaataata cagataatga gaaattggtg aaaatgccta cgcaaagtgt tgacagtgtg
                                                                          2220
   aaagcagtgc gagtgcggcc ttttagtcag gttagtgatg gatgttacgc tgccttgttg
                                                                          2280
   aaaatttcac tgactttgat tttattactt ttttaatgat agttatcaaa cttgtattta
                                                                          2340
   agctgcttgt catttatgga atattgaact tatttaaatg aacttgttaa atgaataaag
                                                                          2400
   agctaaacat aattcagtaa acaattcctt tgcgcaagta gcacaataaa catggatgca
                                                                          2460
   acgtatgtca agttaatact tttttaaacc aacgcaattt ggtgaatata gatgtgtggt
                                                                          2520
   acctgttttt aaaaaaaaaa aaaaaaaaaa aaaaaaaaa aaaactcgt ag
                                                                          2572
   <210> 37
   <211> 704
   <212> DNA
   <213> Homo sapiens
   <400> 37
   ggcagaggaa aggctgtcag ggtgaaaata ctcttcttgc ccttcggctg agataattct
                                                                            60
   gaagcatatt ttacttagtt ttctagagtt cttcttggta attaatgcaa tcaagctcca
                                                                           120
  gtctcctgct gtgatgactg ccttcataac ataccettta ttatttatet gtcttccete
                                                                           180
  cgtatctcac ttcctacctg ttcctacttg tctatttccc tgtgagggac tgaactgtga
                                                                           240
   gcccctcaga ttcaacgtac gaagccccta aatttatttg ttcgagtctg aagccaaagt
                                                                          300
```

<223> n equals a,t,g, or c

```
acctaagaat gtggctttat ttggagatac agctttaaag aggtgatgaa attaaaatga
                                                                           360
   gatcatgaag gtacactcta atccactatg actggtgtcc ttataagaag agattaggac
                                                                           420
   acaacacaca cagagggaat cccatgggca gacacaggga gaacacagac atctgcaagc
                                                                           480
   caagggcagg agcctcagaa gaaaccaaac ctgctgacac cttgatctca gatttcagcc
                                                                           540
   tccagaaatg tgagaaaaat aaatttctgt tgtttaagcc acctagcctg tgatactttg
                                                                           600
   ttacggcagc ccaagctaat taattcactc ccaattaaac tgttcgccct tgaaaaaaaa
                                                                           660
   aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa
                                                                           704
   <210> 38
   <211> 437
   <212> DNA
   <213> Homo sapiens
   <400> 38
   ggcacgaget gaattetaca cateteteta gteeetetga ageeecacet etggageget
                                                                          . 60
   gcctctgatc accccagccc acagtgatct gagttcacag agcacatcct gtttgaatgc
                                                                           120
   cccatttgaa tcacagccta ttcctcttt tgagtgttgg ttgtgcctta agtgcacaga
                                                                           180
   tggcttttca ccagctggac ctcgagcagc ctgaggatgc caccctgcct tctgagccat
                                                                           240
   tettecatea caetgtagtg ceacageget catttagtag gattttggta aacatgggte
                                                                           300
   aactaagtga gacactggca gagcaaggtt atatttagtg ctagaaagga cctacaacat
                                                                           360
   ggtgacttcc tcctagtcta gagaatgtag gccctgacgc tttgatattc ccaataagca
                                                                           420
   aaaaaaaaa aaaaaaa
                                                                           437
   <210> 39
   <211> 943
   <212> DNA
   <213> Homo sapiens
   <400> 39
   gtattttcaa gggtctgtcc tgttatagca cataacggaa cttcattcct tttttaaaag
                                                                           60
   atataattca tgtaccaggt gattcacccc tttaaagtct caaattcagt ggtttttagt
                                                                           120
   atatttccag aattgtgcag ttatcactag gagcaatttt agaatgtttt catcaccgg
                                                                          180
   aaagaaactc tatatccata cgcagcctct ccccatttct ccccaacccc cagccctagg
                                                                          240
   caaccactca totgotttoc gtgtctgtag gattgcttgt totggaaatg ttgtatacat
                                                                          300
   ggaatcatgc actgtgaact cttgtgtgtc acagaaggat catgtttcca tggtgcgtct
                                                                          360
   gtgtcatagc atgtatcagt gcagtaaccc cccttatcca aggttttact ttctgcagtt
                                                                          420
  tcagttaccc acagtacagt acagtaagat attttgagag agagaccaca ctcacattac
                                                                          480
tttattgta atatatcgtt ataattgttc tatttgatta ttgttgttaa tctcttactg
                                                                          540
   tgccttattt agaagttaga ctttgtcata agtatgtatg tataggagaa aagatagtat
                                                                          600
   atataaggtt tggtgctatc cacagtttcg gacatcccct gggggtcttg gaatgtawcc
                                                                          660
   tgtggataag cgggaccact gtacttcatt cctttttatt gtcaaataat attycatkgk
                                                                          720
   gtggctawgc catawtttgc cyattcattc gtcagttggt agacatttga ggtgtttcca
                                                                          780
   twttttggct tttgtgaaga atcctaggcc gggcacagtg gctcatactc ctgggacctt
                                                                          840
  gggaggccaa gacgggacga tcacttgagc tcaggaattt aagaccagcc tgggcaacat
                                                                          900
  agtgagactc tgtctctaca aaaaaaaaaa aaaaaaactc gag
                                                                          943
  <210> 40
  <211> 1875
  <212> DNA
  <213> Homo sapiens
  <220>
  <221> SITE
  <222> (38)
```

<221> SITE

```
21
 <400> 40
 aagcagccet cgtcggaagc cctaccgtgc caactggncc ctcctcccga cctgctcccg
                                                                        60
 gctcgtgccc cgtcccaccc aaaagtgggt aaaggttgcc ggcgccggca ctgcagctgg
                                                                       120
 ggctgagaag ccaggacggc ccgagaactg acagacggag tgacagacgg actgaccatg
                                                                       180
 gccgaccagc caaaacccat cagcccgctc aagaacctgc tggccggcgg ctttggcggc
                                                                       240
 gtgtgcctgg tgttcgtcgg tcaccctctg gacacggtca aggtccgact gcagacacag
                                                                       300
 ccaccgagtt tgcctggaca acctcccatg tactctggga cctttgactg tttccggaag
                                                                       360
 actettttta gagagggeat eaeggggeta tateggggaa tggetgeece tateateggg
                                                                       420
 gtcactccca tgtttgccgt gtgcttcttt gggtttggtt tggggaagaa actacaacag
                                                                       480
 aaacacccag aagatgtgct cagctatccc cagctttttg cagctgggat gttatctggc
                                                                       540
 gtattcacca caggaatcat gactcctgga gaacggatca agtgcttatt acagattcag
                                                                       600
 gcttcttcag gagaaagcaa gtacactggt accttggact gtgcaaagaa gctgtaccag
                                                                       660
 gagtttggga tccgaggcat ctacaaaggg actgtgctta cccttatgcg agatgtccca
                                                                       720
 gctagtggaa tgtatttcat gacatatgaa tggctgaaaa atatcttcac tccggaggga
                                                                       780
 aagagggtca gtgagctcag tgcccctcgg atcttggtgg ctggggggcat tgcagggatc
                                                                       840
 ttcaactggg ctgtggcaat cccccagat gtgctcaagt ctcgattcca gactgcacct
                                                                       900
 cctgggaaat atcctaatgg tttcagagat gtgctgaggg agctgatccg ggatgaagga
                                                                       960
gtcacatcct tgtacaaagg gttcaatgca gtgatgatcc gagccttccc agccaatgcg
                                                                      1020
gcctgtttcc ttggctttga agttgccatg aagttcctta attgggccac ccccaacttg
                                                                      1080
tgaggctgaa ggctgctcaa gttcacttct ggatgctgga agctgtcgtt gaggagaagg
                                                                      1140
agtagtaagc agaactaagc agtcttggag ggcaagggga ggggaatggt gagatccgag
                                                                      1200
ccctgtgcat ggacttggtg agactgttgc cttaatgaca tcctgcaccg tgtataactt
                                                                      1260
agtgtgtcat tttgaaactt gaattcattc ttatcaattt aagggatctt aaaaggattt
                                                                      1320
ggaaatggaa caagtagctt ccagaccaga tactacctgt ggcaagaatg ctgcctacca
                                                                      1380
gttaactgct ggtcctacca cagtcaaagt attcctyakt aaagagwgaa tctcaggttc
                                                                      1440
tcactggagg cactgtgcat attttcaacc agatcaccag gagctgagat cttcttcagt
                                                                      1500
ccctagccag gaatacccat ttgatttcca gggtgccatc taatcctggg ctgtacatgt
                                                                      1560
ggatatggac ttgaggccca cctctgtgtc caagtggatt gagcatatat gcctaggagg
                                                                      1620
agatagactg ttaatcgttg gattttgatt ttttttttt atgcctgcaa ataatcaaaa
                                                                     1680
gtaaaactgg agtagcctaa ttttctggga gcaggtggag aactttccct cctacacagt
                                                                     1740
gaggacagtc ccagtctgct gggataagtg agaaagccca gggtgtagga aggccctttt
                                                                     1800
tacatactct tttctcatga gagctcacta ttttaacaat aaacaataaa cgttgtttct
                                                                     1860
aattttaaaa aaaaa
                                                                     1875
<210> 41
<211> 490
<212> DNA
<213> Homo sapiens
<400> 41
aattcggcac gagaaaagct tagagaagga aatagtaagt agatgaccag ggctactact
                                                                       60
gagttcccct cccctaaatt tagcacgttg cttgtcctgg tattatcttt actgagagct
                                                                      120
cacatactta ttccaaagga gcctcttcag tctagctgct tactgaaaac actatattgg
                                                                      180
gcctgttcat gtaatagtga tttcattcgt tgcattctta gggaagtttc cggtaaaata
                                                                      240
tggagattta gtaaaacctt ataattatat ttggggtcaa aactagtttg gaatatttta
                                                                      300
atagtgtaac ttaaaattaa caaaggaaag tttccccccg cctcctccac ccagtgtttg
                                                                      360
tgctttacca taacattatt aagactggta aagtgtaatg acatatcaaa ttgcaaagtc
                                                                      420
480
aaaactcgag
                                                                      490
<210> 42
<211> 786
<212> DNA
<213> Homo sapiens
<220>
```

```
22
    <222> (770)
    <223> n equals a,t,g, or c
   <400> 42
   gatatgtttt aattatctga tttagatgat ctacttttta tgcctggctt actgtaagtt
                                                                          60
   ttttattctg atacacagtt caaacatcat tgcaacaaag aagtgcctgt atttagatca
                                                                         120
   aaggcaagac tttctatgtg tttgttttgc ataataatat gaatataatt taagtctatc
                                                                         180
   aatagtcaaa acataaacaa aagctaatta actggcactg ttgtcacctg agactaagtg
                                                                         240
   gatgttgttg gctgacatac aggctcagcc agcagagaaa gaattctgaa ttccccttgc
                                                                         300
   tgaactgaac tattctgtta catatggttg acaaatctgt gtgttatttc ttttctacct
                                                                         360
   accatattta aatttatgag tatcaaccga ggacatagtc aaaccttcga tgatgaacat
                                                                         420
   tcctgatttt ttgcctgatt attctctgtt gagctctact tgtggtcatt caagatttta
                                                                         480
   tgatgttgaa aggaaaagtg aatatgacct ttaaaaattg tattttgggt gatgatagtc
                                                                         540
   tcaccactat aaaactgtca attattgcct aatgttaaag atatccatca ttgtgattaa
                                                                         600
   ttaaacctat aatgagtatt cttaatggag aattcttaat ggatggatta tcccctgatc
                                                                         660
   ttttcyttaa aatttctctg cacacagg acttctcatt ttccaataaa tgggtgtact
                                                                        720
   780
   ggccgc
                                                                        786
   <210> 43
   <211> 1676
   <212> DNA
   <213> Homo sapiens
   <220>
   <221> SITE
   <222> (798)
   <223> n equals a,t,g, or c
   <220>
   <221> SITE
   <222> (927)
   <223> n equals a,t,g, or c
   <220>
   <221> SITE
   <222> (944)
<223> n equals a,t,g, or c
   <220>
   <221> SITE
   <222> (974)
  <223> n equals a,t,g, or c
  <220>
  <221> SITE
  <222> (1035)
  <223> n equals a,t,g, or c
  <220>
  <221> SITE
  <222> (1058)
  <223> n equals a,t,g, or c
  <400> 43
  acgagcagat tcccaagaag gtacagaagt ctttgcaaga aaccattcag tccctcaagc
                                                                         60
  ttaccaacca ggagctgctg aggaagggta gcagtaacaa ccaggatgtc gtctcctgtg
                                                                        120
  acatggcctg caagggcctg ttgcagcagg ttcagggtcc tcggctgccc tggacgcggc
```

```
23
    tectectgtt getgetggte ttegetgtag getteetgtg ceatgacete eggteacaca
                                                                         240
    gctccttcca ggcctccctt actggccggt tgcttcgatc atctggcttc ttacctgcta
                                                                         300
    gccaacaagc.gtgtgccaag ctctactcct acagtctgca aggctacagc tggctggggg
                                                                         360
    agacactgcc gctctggggc tcccacctgc tcaccgtggt gcggcccagc ttgcagctgg
                                                                         420
    cctgggctca caccaatgcc acagtcagct tcctttctgc ccactgtgcc tctcaccttg
                                                                         480
    cgtggtttgg tgacagtctc accagtctct ctcagaggct acagatccag ctccccgatt
                                                                         540
    ccgtgaatca gctactccgc tatctgagag agctgcccct gcttttccac cagaatgtgc
                                                                         600
    tgctgccact gtggcacctc ttgcttgagg ccctggcctg ggcccaggga gcactgccat
                                                                         660
    gaggcatgca gaggtgaggt gacctgggac tgcatgaaga cacagctcag tgaggctgtc
                                                                         720
    cactggacct ggctttgcct acaggacatt acagtggctt tcttggactg ggcacttgcc
                                                                         780
   ctgatatccc agcagtangc cctgccttcc tggccactga tttctgcatg ggtagaccat
                                                                         840
   ccaagactgc agcgggtaga aggtggcagt tcttcatggg agtcttttta acttggtgcc
                                                                         900
   tgagttctct cctaagcaag tggccanttg cctccacctc agtncttcca tctttgggtg
                                                                         960
   ggggacaggg gccnagcaag catctcagcc tcctacccac aattccactg aacacttttc
                                                                        1020
   tggccctact gcacntggcc cccagcctcc atccttgngc tggtagcctc tcacaactcc
                                                                        1080
   gtccttgccc tttgccttcc acttccttcc atctcatttc taaaccccaa acagctcatc
                                                                        1140
   tctaaaaaga tagaactccc agcaggtggc ttctgtgttc ttctgacaaa tgattcctgc
                                                                        1200
   ttctccagac tttagcagct cctgatccca ttcttggtca cagctctagc cacagcagaa
                                                                        1260
   ggaaaggggc ttgcagaaga atatagcacc gaattgggaa acagcagcct cacctccacc
                                                                        1320
   tgaagcctgg gtgtggctgt cagtggacat ggggagctgg atggaaatgc ctctcacttc
                                                                        1380
   aaaatgccca gcctgcccca aatgcctcta agcccctccc tgtcccctcc cttgtagtcc
                                                                        1440
   tacttcttcc aactttccat tccccatcat gctgggggtc ttggtcacaa ggctcagctt
                                                                        1500
   ctctccactg tccatccctc ctatcatctg tagagcagag cacaggcagt tgtgtgcctt
                                                                        1560
   gggcccaggg aaccctccat caacctgaga caggactcag tatatggttc ttgggtatgc
                                                                        1620
   1676
   <210> 44
   <211> 766
   <212> DNA
   <213> Homo sapiens
   <400> 44
   ggcacgaget tttgctctca tttgccttca cagaggccac tccacctgtc cggatccagc
                                                                         60
   tgtctggtca tggtttggtt tatttatttt gtccttcagg ggctgttttg ccctaagaat
                                                                        120
   gagggggctt cccctggtct gcagttccca actttatccc ttgctggcca tgcgagccca
                                                                        180
   gccctggtgc ctcatgggat gggggggtag gggtccccag gatcttctgg aggaaggtgg
                                                                        240
   gcatggatgg atgggctgta tctgtgtttt ccctctggga gtctcatggg tccagcatca
                                                                        300
🜊 ggeetgaggt eageaacagg gaaagaggt gggeacgggg agggettgge eeegeetate
                                                                        360
   tagaggettg cetegggece etecttgggg aaggtttgeg tgeagagetg caagggagag
                                                                        420
   ggttccagaa gcattgcctt ttgcctcgtc taataggatc cttaggacac tgtgggcttt
                                                                        480
   aggaatgact atagatgctc acacgtgttt aaagtgacat ttggagatgc tctcagtcct
                                                                        540
  gtggcatctg gcacgaagtc tccaagaagc cactttgcct cttctccctt caagcacaag
                                                                        600
  ctttactgca aaagggccag tegegtttet attteteteg ateceagget tetgeggace
                                                                        660
  gacgatacgt ttaaatgttg ttctagtaaa tattcttgaa tgtattaaaa tggctgaaac
                                                                        720 -
  766
  <210> .45
  <211> 1021
  <212> DNA
  <213> Homo sapiens
  <400> 45
  gtaatteett aaacataeea tetgteaeag ttaatetaga tttgtaaata ggtagtaatt
                                                                         60
  tatagaattt ttaaagcgta aaatccggta atattaaaag ataggtaaac ctaggcctgg
                                                                        120
  aaagctgtta tttggctaaa attgcacagg aggccatgaa cagaggcaag tgccccagag
                                                                        180
  actccacttt cattcctaac tgttctcaaa ttaatgctca tgattgagta ttctcagtgc
                                                                        240
```

aactcgtaga gtttgataag taaaagttac atgcccctgt tttcctagca tgatattcac

			24			
tgttatcaaa	a gacaagagg	c agaccatte	a ttcattctca	a aaacactgaa	tgccattctg	360
tgcctagtg	c tatacaagg	c atgggagatt	cagtgtgaat	aagtctttgd	tctccaccta	420
					: agtaggcatt	480
aaaaatcgta	a attagtttg:	a taatatgaga	a cccaacccta	acttgccaga	agagtaatca	540
					cattctagtg	600
					ctttttatac	660
					ctttgttttg	720
					cagagggaga	780
					ttctataaag	840
aataactcta	aaataggcat	cttcccagga	ctttccattc	tcaggaaaac	acctagttac	900
gtataaaaaa	taacttctad	tgctttatgt	agtcatatag	gtctgcctaa	aataagaatt	960
tgtatttaat	aaataccaaa	a attttcaaat	ggtaaaaaaa	aaaaaaaaaa	aaaggggggg	1020
С			35		~~~555555	1021
						1021
<210> 46						
<211> 1873						
<212> DNA						
<213> Homo	sapiens				-	
	-					
<400> 46						
	caggeteeeg	teggaettea	cttggccaca	tccttcacta	ctctccttcc	60
			catgtgttcc			120
acctccacag	ttttgctcag	atteteatte	cctctcccag	acctatataa	actotatact	
			tcagcttcca			180
			tgtctagatg			240 300
			ttctttcctt			
			tcccatccac			360
			atggtgaaag			420
			attacaggcc			480
aaaaaaaata	aaataqtqtq	acacaagaac	caaaatacca	tananatata	acceattaag	540
tgaacaggag	taatattaad	acadaaaaaa	aatggttctc	ttatagaacaca	aatcaaagtg	600
aaatacacaa	aacaaaatcc	acagaaaggc	cagctgcaga	ccctggaacc	actageactt	660
atttttccct	aactagatge	cateccccat	gtacagtagt	tagtaataat	agacacaatt	720
tagtctcata	acaaccctat	tattatatat	atgttacgta	ccctaaccat	cccctcatct	780
						840
gtagcacctt	ttccacattc	accatgcaac	cagcaaggca cctaaattct	gageraggar	cigiateeca	900
tttttacaac	acatttacaa	attataaat	aagtcaccgg	cetgegtett	cactgtattg	960
aacactccta	tgaattttag	atttctcct	gggcaccgca	ctactgagag	ataaagaagt	1020
cactttagga	agetgagge	acceeggee	gtgagcccag	gettacatet	gradicedag	1080
caatatagga	agecgaggea	tcaaaaacaa	ttataaattt	adytttydyd	ccageetggg	1140
actatogec	agateceate	ccaaaaacaa	ttgtgcattt	Claalactca	ctgageceet	1200
tgaactgaaa	ggctcagtgt	atacattect	atatctccta	gcaaacccag	gagctatgta	1260
gaactgaaa	aceastast	atagettygt	caaagtcaca	cageteaggt	gggggaggct	1320
			tccatacttg			1380
accetetest	ggccccgtag	ggggtgagag	gagaaacccg	gccccagaga	cagggtctga	1440
acctaccaca	ccaddaaat~	ayayadadCa	gtccctcacc	cacaacgtgg	ggataacact	1500
atacatasas	ccayycaycy	yaaayaatta	aattaattta	aataaaggag	acagtgcaga	1560
tcactctaat	accatattta	ttatcactta	agctattatt	ayaygtaact	ccccctgctt	1620
tatotatoot	tttctctataaa	atacateta	aggtgatcac	acasacat	cctaaaatat	1680
acadaaaaa	ggaagaaatt	acacacycaa	gtgtaaaatg	cagaagaaaa	ycatgcgggg	1740
ctcaaccaat	tattasatsa	tanaataa	tattgatcag	CCTTTCCCCC	aaaatacttt	1800
cgataccgtc		ccaacatggc	gcctcgtgcc	gaattcgata	tcaagcttat	1860
-garacegre	940					1873

<210> 47

<211> 621

<212> DNA

<213> Homo sapiens

```
<220>
<221> SITE
<222> (488)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (536)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (539)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (548)
<223> n equals a,t,g, or c
<400> 47
acagagtete getetgttgt ceageetggg caacagagaa aacaaaagg aaaacaaatg
                                                                         60
atgaaggtct gcagaaactg aaacccagac atgtgtctgc cccctctatg tgggcatggt
                                                                        120
                                                                        180
tttgccagtg cttctaagtg caggagaaca tgtcacctga ggctagtttt gcattcaggt
                                                                        240
coctggcttc gtttcttgtt ggtatgcctc cccagatcgt ccttcctgta tccatgtgac
cagactgtat ttgttgggac tgtcgcagat cttggcttct tacagttctt cctgtccaaa
                                                                        300
ctccatcctg tccctcagga acggggggaa aattctccga atgtttttgg ttttttggct
                                                                        360
gcttggaatt tacttctgcc acctgctggt catcactgtc ctcactaagt ggattctggc
                                                                        420
tecceegtae eteatggete aaactaceae tecteagteg etatattaaa gettatattt
                                                                        480
tgctgganta ctgctaaata caaaagaaag tccaatatgt ttccattctg tagggnaana
                                                                        540
gggatgcngg cttaaaattc tgagcaaggg ttttttggca gtgcagtgtt ggcactatgg
                                                                        600
aaaacccttg gtcccccgga a
                                                                        621
<210> 48
<211> 1290
<212> DNA
<213> Homo sapiens
<400> 48
ccacgcgtcc ggtcagcggc tcggctcccg cgcacgctcc ggccgtcgcg cacctcggca
                                                                         60
                                                                        120
cctgcaggtc cgtgcgtccc gcggctggcg cccctgactc cgtcccggcc agggagggcc
atgatttccc teceggggcc cetggtgacc aacttgetge ggtttttgtt cetggggetg
                                                                        180
agtgccctcg atgtcatccg tgggtcttta agcctcacca acctttcgtc ttccatggct
                                                                        240
                                                                        300
ggagtetatg tetgeaagge ecacaatgag gtgggeactg eccaatgtaa tgtgaegetg
                                                                        360
gaagtgagca cagggcctgg agctgcagtg gttgctggag ctgttgtggg taccctggtt
ggactggggt tgctggctgg gctggtcctc ttgtaccacc gccggggcaa ggccctggag
                                                                        420
gagccagcca atgatatcaa ggaggatgcc attgctcccc ggaccctgcc ctggcccaag
                                                                        480
ageteagaca caateteeaa gaatgggace ettteetetg teaceteege aegageeete
                                                                        540
eggecaecce atggecetee caggeetggt geattgaece ceaegeecag tetetecage
                                                                        600
caggecetge ecteaceaag actgeceaeg acagatgggg eccaecetea accaatatee
                                                                        660
cccatccctg gtggggtttc ttcctctggc ttgagccgca tgggtgctgt gcctgtgatg
                                                                        720
                                                                        780
gtgcctgccc agagtcaagc tggctctctg gtatgatgac cccaccactc attggctaaa
                                                                        840
ggatttgggg teteteette etataagggt caeetetage acagaggeet gagteatggg
                                                                        900
aaagagtcac actcctgacc cttagtactc tgccccacc tctctttact gtgggaaaac
catctcagta agacctaagt gtccaggaga cagaaggaga agaggaagtg gatctggaat
                                                                        960
                                                                       1020
tgggaggagc ctccacccac ccctgactcc tccttatgaa gccagctgct gaaattagct
acteaceaag agtgaggggc agagacttee agteactgag teteceagge eccettgate
                                                                       1080
```

			26			
tgtaccccac	ccctatctaa	caccaccctt	ggctcccact	ccagctccct	gtattgatat	1140
aacctgtcag	gctggcttgg	ttaggtttta	ctggggcaga	ggatagggaa	tctcttatta	1200
aaactaacat	gaaatatgtg	ttgttttcat	ttgcaaattt	aaataaagat	acataatgtt	1260
tgtatgaaaa	aaaaaaaaa	aaaaaaaaa				1290
<210> 49						
<211> 2126 <212> DNA						
<213> Homo	canione					
\213> 1101110	sapiens					
<400> 49						
	cacatagaga	atgaaattgc	cctggaacat	tgtgaatata	ctaaaagcaa	60
			taattttata		_	120
			aataaactca			180
			gaatagctaa			240
aacataatga	aacatttcct	taaaaaagag	aaaagcacag	taattaaaaa	ggaaaataat	300
attttttctc	tccattaagc	atgccattaa	ctgagtaaaa	gaatcaagct	gcaattatgt	360
aaactacgtt	ttctaaaacc	ataaagaaaa	gaagaaataa	aaaggtattt	gggaaaaaaa	420
tccaaaggta	cagtcaacta	cacaaaaaaa	gcttagtctc	attaatcatt	atgaaaatgc	480
aaatggtaac	tgaaagaaga	taaaactaca	attcaaagag	aaagcctaaa	atttcaaccc	540
cccaaaaagt	ctgggttttg	gagatctggg	atggaatagg	gttcctaacc	tgacaacaat	600
gaaagaacca	aactaacctc	aaagtcatga	ctttattttt	atagcaacga	gttgccaaga	660
actgagtcaa	aatgtgaggg	aaaacaagca	cctgcaagga	gaaagaggac	agatgcactt	720
acatagggac	agatgcaaat	agacccacta	tgacaagtaa	agctggaata	atcaataaat	780
			gggagacggc			840
			cacaaaccca			900
			cacagatcag			960
		-	tgaatcggat	· -		1020
			tgtgaggaca			1080
			gaatttgtga	=		1140
			tctgttgttt	-	-	1200
_			gatattccac			1260 1320
-	=	-	atgctgggag	-		1320
			aatatcactg cctgagaccc			1440
			atgattgaaa		-	1500
			aaataactgc			1560
			actcagagaa			1620
			aaaatcttta			1680
			aggttatcat			1740
		_	aaggactaca			1800
			gagacaatag	-		1860
-			gtatgcagct			1920
cgtgaggtaa	aacacgaaag	aaatcaaagg	tgaactagaa	aaatccaaaa	ttatatttgc	1980
agacttcaac	acttttgtct	tagtaatgga	aagactaggc	acaaactcag	taatcatgtg	2040
gaagataaga	acaacagtat	caccaacaag	acatccaatc	ttcaatggca	gatactcttt	2100
cctttcaagt	gaaaaaaaaa	aaaaaa				2126
-210: E0						
<210> 50 <211> 1363						
<211> 1363 <212> DNA						
<212> DNA <213> Homo	caniene					
-215 HOMO	Lapa Cito					
<400> 50						
ggcacgagtg	gcataggggc	ctcaggtatg	agggctggaa	actctaaaca	gatagactat	60
gtggcatctc						120
ttgagctgta						180

ttgagctgta tggggacctc tgccctgtgg cctttcctcc cactgttatt tctccttggt

```
ttcctgtttt ccagctgtgg gttcccagag gcgtcatttg gaccctgggt agtagttagg
                                                                       240
gctgagctct ggggttgtgt ggttggagcg gcgtgtgtct tagggctgta ctggcaagtg
                                                                       300
ggccaaagca gtctaaacac cctggctagg agccagaaac cggggctccg tgtccaaccc
                                                                       360
gggaageetg ggaageteet eeeegteace tteeagatge tgeegeetee atgtgggggg
                                                                        420
tgttgctccc cgctgggtct ttgcccgagt tctggggggaa gccggatgtg gaggaggacc
                                                                        480
tgggtgggtg ccagagcact tcatcettaa geteacetea eetaaatgtt eecaeeecea
                                                                        540
cagccaccac cggcacaggc aggaccatgc ttcaacttgc caagagtgtt tccagggact
                                                                        600
ggtccctctg gttcaacgag tttggtggtt ctcagcacca actgcttatt ggaatcatct
                                                                       660
gagtagattt cagaaaagaa actgtcaatg cctggcccca gcccctgaga gtctgctgtt
                                                                       720
attggtctcc agtggaacct gggccccagc atttttcaaa gctccccagg taatttgaat
                                                                       780
gtgcagtcag agttgaaagc agctgccata tccagtttgg gtctccctgc ctctcccatg
                                                                       840
tecetgggtt geeccagaaa ttttttetea tteaetgata attttaatga teaatacaga
                                                                       900
gtttgcaaaa gtgaagacag acatgtcaga ccaaacactg gattcagtgt tctgttccat
                                                                       960
gagactgttc catgagttca tagttattaa aaccagaact taagcgggaa actatagcaa
                                                                      1020
atgatagaaa ctgaattttc tcctcagttt ttaattttta aaaactttta aggctgggtg
                                                                      1080
cagtggctca tgcgtgtaat cccagcactt tgggaggctg aggtggccag atcatgaggt
                                                                      1140
caggagttga aaaccagcct ggccaacatg gagaaacccc gtctctacta aaaattatct
                                                                      1200
gggtgcggtg gtgggtgccc ataatcccag ctactaagga gactgaggca ggagaatcgc
                                                                      1260
ttgaacccgg gaggcagagg ttgcagtggg ccaagatcgt gccactgcac tccagcctgg
                                                                      1320
1363
<210> 51
<211> 2398
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (1874)
<223> n equals a,t,g, or c
<400> 51
attgettagt ttgatgtgtc ttgctttaaa tccatttatt tcaacaagct taaagagatt
                                                                        60
                                                                       120
tttttttaat ggagatgatt taattttaac aatctgtgat tttctctgaa tcgaacttgt
gttttggcac ctttcaatct gtggtaacaa atgacaagaa gggtgcaatt cttccttccc
                                                                       180
                                                                       240
ttgtgcaggg attttgcctc cccctttctc ccagatgaaa gatatttggg tctctagaat
                                                                       300
aactgtggta cagttagctc cagagtgttt tctttctgga ggcagtttag acaacagcct
                                                                       360
caagtagtgc ttttgttaaa aatatacatg tttttaaaag tgcttgtatt tctaatattc
ttttctcctt tctcttctag tctgttctct ggggaggcag taaggggccg tggagctggc
                                                                       420
                                                                       480
cteggeeteg geategggag aggetggaet teetgtetet etgtgetgaa tggetgegat
                                                                       540
ggcgcccgct ctcactgacg cagcagctga agcacaccat atccggttca aactggctcc
cccatcctct accttgtccc ctgggcagtg ccgaaaataa cggcaacgcc aacatcctta
                                                                       600
                                                                       660
ttgctgccaa cggaaccaaa agaaaagcca ttgctgcaga ggatcccagc ctagatttcc
gaaataatcc taccaaggaa gacttgggaa agctgcaacc actggtggca tcttatctct
                                                                       720
gctctgatgt aacatctgtt ccctcaaagg agtctttgaa gttgcaaggg gtcttcagca
                                                                       780
agcagacagt cettaaatet cateetetet tateteagte etatgaacte egagetgage
                                                                       840
tgttggggag acagccagtt ttggagtttt cyttagaaaa tcttagaacc atgaatacga
                                                                       900
gtggtcagac agctctgcca caagcacctg taaatgggtt ggctaagaaa ttgactaaaa
                                                                       960
gttcaacaca ttctgatcat gacaattcca cttccctcaa tgggggaaaa cgggctctca
                                                                      1020
                                                                      1080
cttcatctgc tcttcatggg ggtgaaatgg gaggatctga atctgggggac ttgaaggggg
gtatgmccaa ttgcactett ccacatagaa geettgatgt agaacacaca attttgtata
                                                                      1140
gcaataatag cactgcaaac aaatcytctg tcaattccat ggaacagccg gcacttcaag
                                                                      1200
gaagcagtag attatcacct ggtacagact ccagetctaa cttggggggt gtcaaattgg
                                                                      1260
agggtaaaaa gtctcccctg tcttccattc ttttcagtgc tttagattct gacacaagga
                                                                      1320
taacagcttt actgcggcga caggctgaca ytgagagccg tgcccgcaga ttacaaaagc
                                                                      1380
gettaeaggt tgtgcaagee aageaggttg agaggcatat acaacateag etgggtggat
                                                                      1440
ttttggagaa gactttgagc aaactgccaa acttggaatc sttgagacca cggagccagt
                                                                      1500
```

tgatgctgac tcgaaaggct gaagctgcct tgagaaaagc tgccagtgag accaccactt

```
cagagggact tagcaacttt ctgaaaagca attcaatttc agaagaattg gagagattta
                                                                       1620
                                                                       1680
cagctagtgg catagccaac ttgaggtgca gtgaacaggc atttgattca gatgtcactg
acagtagttc aggagggag tctgatattg aagaggaaga actgaccaga gctgatcccg
                                                                       1740
agcagcgtca tgtacccctg tgagtagacc tcatgcatga tagcattctt gagaaatgtt
                                                                       1800
ggcacaagga agaatgaatg aatcgccatt atggagagaa tgtgttsttt gtacataggt
                                                                       1860
gtytagttcy gttngttttt tccctgatgt tgggtagatg agtgcatata catgctagtg
                                                                       1920
aagaagggga agatactttg ctgtagggtt gtattgttgt agtctaaatg gtggtaattt
                                                                       1980
ccttttgdag tctaagaaaa ataactagga gacatcttat gtgtaaaatt gtactagtac
                                                                       2040
ctctttaaga gtgaatttag atttcttttg aaactatata taggacatga taagttaatg
                                                                       2100
gcctgattgt tgagattttg ttgtttccag taagcaggga caaatgctga gttgacctag
                                                                       2160
ttacctttgt aggaaattac agttgctttt gattgaactt tcagcagaga gcacacccag
                                                                       2220
tcttcaattt taacacttga gattttctta cattttaagg actgacaatt agaaaatgct
                                                                       2280
tcagaatatt taatacatcg cctccaagca cagtctagtt tcacaacctg actctcttcc
                                                                       2340
tattaaaaaa aaaaaaaaa aactcgrggg ggggcccgta cccaatcgcc cctcatga
                                                                       2398
<210> 52
<211> 2234
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (5)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (136)
<223> n equals a,t,g, or c
<400> 52
                                                                         60
ggctncaaag tggtccctgt cggaaagtaa tttaatcaac tggagaactc ccggagtcca
                                                                        120
gcccccaact cccccaccc ccatcccagt gggaatgcca ccaacagccc atctcaacaa
                                                                       180
tttcccaaag taacantctc caggtggaag acctgtgaag tatccccacc cagaaacctt
ggatactgag totoctaato ttatcaatto tgatggttto tttttttccc agottttgag
                                                                        240
                                                                        300
ccaacaactc tgattaacta ttcctatagc atttactata tttgtttagt gaacaacaa
tatgtggtca attaaattga cttgtagact gaggggattt tggttttggt tttgggtttt
                                                                        360
gtttttttgc ggtgggggg ctggtatttg gaagaattta gctctttatg ttacagaaat
                                                                        420
                                                                        480
cttttttgca aggacttaga aatgataatg cttaagattg ttcttgcccm atgtgggaag
agaatctaag gtttttatat gtcttgcaac ctcatcaaag gaaaattact ggcatcattt
                                                                        540
yeataatttq aaaaaaaaq ccaaattaat atatttettt tttgatteac tttttaagtg
                                                                        600
atcattttta aaactttact tttgacccac tgaatttatt tagatagaag gaaaagagat
                                                                        660
                                                                        720
gatgggaggg aagtttagat aaaggatgga agttggtttt atttaaacaa tagcccygtg
                                                                        780
atttccyaat gagaagtgac tagaaattga agaaaccaaa taaggrggrt awtggkcaat
ttagcyttag tttctcttac tctctcaagc ctgccctgtt taactccaaa gttcatggct
                                                                        840
                                                                       900
cataatttga gaaacactgt tttaaacaca ggagaaaaaa atgtccattt taaatcatag
ctattgaatt ctacaattac aaagaaacaa acaaacaaaa tttgaccaac ccaggcggtt
                                                                       960
                                                                      1020
aaatttaaac tcttcaggaa aaatttaagc tgttaamatt attcttttc taaatttcta
aagtggaggg acagaatttt tcagatttaa aagggcctcc taggtgccca gaaaattagt
                                                                      1080
ggaaagaacc acgtctagac gcatctttga tgtgtcagag ttccaaggat aaaaagaaac
                                                                      1140
                                                                      1200
ttttaaagtc ttctatactc agccaggtta tcaatcaaat atgagggcaa aataatattt
tcagacagat tttaggcagt ttatcttcca tatatccttt tctttaaggg tatttgtaga
                                                                      1260
tacactccag aaaaacaaga gtgaaatatg aaggaagttg tggggtccag caaacagtgc
                                                                      1320
                                                                      1380
ttccaaatca gacccctgat agaggtggaa aactttgcaa tgcaacaact gcgtagctgg
cttagaggac agcctacaga tggwwcagaa agatgagsat gggattgagg gatcagggat
                                                                      1440
tgaggtctcc aagaataaaa agggacttca tggaaaaagt aggcttgtgg ataattaatc
                                                                      1500
                                                                      1560
acaggggcaa ataatgcagt taaaataaca acatgacaat caggtggagg aatgtataat
```

aaacccaaat gtggctgggt agagtggctc acacctgtaa tcccagcact ttgggaggcc

```
1680
aagccgggca gattacctga ggtcaggagt tcgagaccag cttggccaac atggcgaaac
                                                                      1740
cccgtctcta ctaaaaatac aaaaattagc caggcttggg ggcgcacgcy tgtagtccca
gctcctcagg_agctgaggta ggagaatcac ttgaacccag gaggcaaagg gtgcagggag
                                                                      1800
ttgagcccaa gatcgcgcca ttgcacccta gcctgggcaa cagagcgaga ttctgtttca
                                                                      1860
aaaaaccccc aagtgtatta taaggcaata attcctatac gaagcaaact aaaatgcagc
                                                                      1920
aatattaagg tataaaaaca aagaggaata attccattga accttgattc tggaaacttt
                                                                      1980
gatccaccca gcagtcatga tgttagactc attgaaaaga atgtatttct aatgcatgat
                                                                      2040
                                                                      2100
gcaatcggtc tatagatgtg tcatggaaac ttggttgcaa cttcaagaca aaataaaaag
taaacattta catgaaaaat ggtggatatg gaaggtggag aagagaggag ataacagctt
                                                                      2160
2220
aaaaaaactc gtag
                                                                      2234
<210> 53
<211> 538
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (502)
<223> n equals a,t,g, or c
<400> 53
ggcacgagct ccaccaccag cagcgggtaa ccccaggcct tgccgaacgt cacggcaaag
                                                                       60
ggcttgaggg ccaggcgctt ggcagcgctg ggctccactt ggatcatgcc tttgacgtag
                                                                      120
gcacgcaagg cagccttgtt tttcttcatc cagatagacg cgcgcttgcg ctcttcgtgg
                                                                      1.80
gcgtgttcgt gattgttctc atccacggct ttttcgtgca gcagcaagaa gggctgctca
                                                                      240
cgggccagca gacgttcgaa ggtcaggaag gcgtcttccg gcgcaccttc gctaggcgcg
                                                                      300
                                                                      360
tcgaaaaaga ttttcaccac cgggaaagtt gaactgtcga gtcgcatggc aaagctcctt
tgatgagatt gattctcatc atagggcgcc tggcgctgga cagcattgca cagaatagcc
                                                                      420
                                                                      480
agaatgtttc gcaatccagc caaggcagtt atcaccatgg ttcatcaccg cctcgaccag
                                                                      538
tacgacccct gccgggtccg cnacgccgcc gcgatccctc gctcgattgt tgcagtgg
<210> 54
<211> 1484
<212> DNA
<213> Homo sapiens
<400> 54
                                                                       60
cggcacgagg gacaataagc taaggtagta tcttggccat cccaggaaac ttgtggcatt
aggacgatga aggccatgct tcagtgtttt cgtttctatt tcatgagact ttttgtcttc
                                                                      120
ctgcttacaa gtgggaagat gattgacagt gactctacta tgcagggctg ttggtaccaa
                                                                      180
                                                                      240
cetgageect ataggtggea gteeetggag aagtggteae agaagatgga getetgatee
cctgcttacc tcttcacaac acttgtgtgc aaagatagtt ttagatttgg tttagaagct
                                                                      300
atcctccaga acaggctccc atacttagaa tgtttctagt taaggtaata aattaggcaa
                                                                      360
cccaagtgtg actccactca agtgtccttt tctgtaggca ggaagggccc acaacatggc
                                                                      420
ttaaaatgta gtccatggtt ctggcccaca gtacagtgtg tatctatacc aggtcacctg
                                                                      480
tgttcaatct ggggagcctt cctggccagt ctgagtggca gccagaaggg agctcatagt
                                                                      540
gtctaggaat ctcaggcaaa gtaggtcagg gtactgtggg caggggggat gtgtgtgata
                                                                      600
ggagagggta ccctaaaccc cataccttcc ctccctgacc tgaaaagctg atctcaacag
                                                                      660
ggattcacac agaattaggc tgtgtttttg cattaactgg taggtgactt tctcaaaatt
                                                                      720
cttaaattca gaaagtattt agtaaacttg aggaaggtat gaaatctgga ggaggcatcc
                                                                      780
                                                                      840
aggacccagg ggtttgatag ctttacaggt aggatcatac cacaccaaaa gagcagtgga
caataagact atatgagcta tatgaagctt ttaggaatca tttaggacag acagagccct
                                                                      900
aaacaaccca ttcatgactt aagttgttgg ctcagtgtat gctggggaca aagaaaaact
                                                                      960
aacaagccga cctgccttta tgataaattc tagtgtgctt acaagggatg acttcctgag
                                                                     1020
gtgtgatctg tccaccttga agaactccac aactgaagaa ggggagctgt gagaacgtgg
                                                                     1080
```

			30			
attgttctac	aacttgcaca	gggtaacaga	ggaagtggct	gaggcctaga	gtcacgtttt	1140
ccagttccct	tcgcaaacta	tatttcttgg	aacgcgaaag	gaagctttac	ctatttcata	1200
gaagacctgg	aatccataac	ctcagaaggc	aatattattg	atagaaaatg	tggaaggatc	1260
					gatgtccttg	1320
			gtctactctt			1380
				_	acattaacaa	1440
aaacaattaa	aaacaccaaa	aacaacaaaa	aaaaaaaaaa	aaaa		1484
<210> 55						
<211> 1765						
<211> 1705 <212> DNA						
<213> Homo	saniens					
12207 1101110	bapiciib					
<400> 55						
ggcacgagat	ttctgggagt	cctgcagagt	·ctagttgcca	agtggaacat	tcttaaaaag	60
			tgctgtcttg			120
			ttctgtatta			180
		_	acccttgata		-	240
			gggacatgct			300
			tggtatacat			360
		_	taaggttggt			420
			tcacctcacc			480
			acaagccaga			540
			acttctggaa			600
			catgaagaat			660
			agaattttt	-		720
tccagaatct	tttactgtct	accactacaa	tggattgaag	cagtcaaatt	ataatgaaaa	780
			gatgggtttt			840
agatgacact	cctattaaac	gctgtctgca	aaccaaatgg	ccatacattg	agttactctg	9,00
gaccacagat	cgctctcctt	cactaaatta	atttgtctaa	gtatttataa	ggaagatctt	960
aataacagat	gttgaaagaa	ggagtcaaga	ctggcaattg	gctggattaa	gctaaacact	1020
			aaaaacacat			1080
			aagattatcc			1140
aatttactag	caaaattaag	ctttcatcaa	agttcatcac	ttttgcattc	agatacttgg	1200
tcatttactt	accaaattac	aaacgcaata	ctacagcatt	tgtatattaa	gtatcacagt	1260
tactattgat	aaactacttt	tgggttttat	ttcattgagg	cactttttt	attgtttgaa	1320
tgattccggc	ttgtaatata	tcagcctcta	caatgaaatg	cagaagagtt	catttttcta	1380
agatctgttt	ttcattagaa	atattgacaa	ataacacatt	gtcaacctgg	atcctttgac	1440
aatttactta	actctggcat	gttcacaaaa	agtagaaact	ctaagagacc	attaccattt	1500
attcacagat	gtatagggga	tgtattctaa	aaactgacag	aaaagagaat	ctgatagtca	1560
acactgttaa	cttttactgt	gtaattgcca	aatacacttt	tccaaatttg	tcccaacagc	1620
cctgtaagcc	agctttcttc	tatatttata	aacacgataa	atgcatgaga	agatctgtta	1680
ttacattagt	atattacgtt	atttattatg	atcctagttg	atggcctaaa	taaacacctt	1740
tttctttaaa	aaaaaaaaa	aaaaa				1765
-210- 56						
<210> 56						
<211> 1478						
<212> DNA	anniona					
<213> Homo	saprens					
<400> 56						
ggcacgagga	adacadaaat	aggaagetgeg	accordoted	ctatasaata	aacaaacaaa	60
gaaatggcgc						120
ggtgctccct						180
agagaactgc						240
caaaatcttc			=			300
			geegaacggg		-Juggocuut	360

attgcgaaag tagatgtcac agagcagcca ggactgagtg gacggtttat cataactgct

```
cttcctacta tttatcattg taaagatggt gaatttaggc gctatcaggg tccaaggact
                                                                      420
aagaaggact tcataaactt tataagtgat aaagagtgga agagtattga gcccgtttca
                                                                      480
tcatggtttg gtccaggttc tgttctgatg agtagtatgt cagcactctt tcagctatct
                                                                      540
                                                                      600
atgtggatca ggacttgcca taactacttt attgaagacc ttggattgcc agtgtgggga
tcatatactg tttttgcttt agcaactctg ttttccggac tgttattagg actctgtatg
                                                                      660
atatttgtgg cagattqcct ttgtccttca aaaaqqcqca qaccacaqcc qtacccatac
                                                                      720
ccttcaaaaa aattattatc agaatctgca caacctttga aaaaagtgga ggaggaacaa
                                                                     780
gaggcggatg aagaagatgt ttcaqaaqaa qaaqctgaaa qtaaaqaaqq aacaaacaaa
                                                                      840
gactttccac agaatgccat aagacaacgc tctctqqqtc catcattqqc cacaqataaa
                                                                      900
toctagttaa attttatagt tatottaata ttatgatttt gataaaaaca gaagattgat
                                                                     960
cattttgttt ggtttgaagt gaactgtgac ttttttgaat attgcagggt tcagtctaga
                                                                    1020
ttgtcattaa attgaagagt ctacattcag aacataaaag cactaggtat acaagtttga
                                                                    1080
aatatgattt aagcacagta tgatggttta aatagttete taatttttga aaaategtge
                                                                    1140
caagcaataa gatttatgta tatttgttta ataataacct atttcaagtc tgagttttga
                                                                    1200
aaatttacat ttcccaagta ttgcattatt gaggtattta agaagattat tttagagaaa
                                                                    1260
aatatttctc atttgatata atttttctct gtttcactgt gtgaaaaaaa gaagatattt
                                                                    1320
cccataaatg ggaagtttgc ccattgtctc aagaaatgtg tatttcagtg acaatttcgt
                                                                    1380
ggtcttttta gaggtatatt ccaaaatttc cttgtatttt taggttatgc aactaataaa
                                                                    1440
1478
<210> 57
<211> 1089
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (353)
<223> n equals a,t,q, or c
<220>
<221> SITE
<222> (528)
<223> n equals a,t,q, or c
<400> 57
                                                                      60
cggcacgaga aacgcggtgc ttgctcctcc cggagtggcc ttggcagggt gttggagccc
teggtetgee eegteeggte tetggggeea aggetgggtt teeeteatgt atggeaagag
                                                                     120
ctctactcgt gcggtgcttc ttctccttgg catacagctc acagctcttt ggcctatagc
                                                                     180
agctgtggaa atttatacct cccgggtgct ggaggctgtt aatgggacag atgctcggtt
                                                                     240
aaaatgcact ttctccagct ttgcccctgt gggtgatgct ctaacagtga cctggaattt
                                                                     300
tegtecteta gaegggggae etgageagtt tgtattetae taccacatag atneetteea
                                                                     360
acccatgagt gggcggttta aagaccgggt gtcttgggat gggaatcctg agcggtacga
                                                                     420
tgcctccatc cttctctgga aactgcagtt cgacgacaat gggacataca cctgccaggt
                                                                     480
gaagaaccca cctgatgttg atggggtgat aggggacatc cggctcancg tcgtgcacac
                                                                     540
tgtacgette tetgagatee actteetgge tetggeeatt ggetetgeet gtgeaetgat
                                                                     600
gatcataata gtaattgtag tggtcctctt ccagcattac cggaaaaagc gatgggccga
                                                                     660
aagageteat aaagtggtgg agataaaate aaaagaagag gaaaggetea accaagagaa
                                                                     720
aaaggtotot gtttatttag aagacacaga ctaacaattt tagatggtaa ggttcacaaa
                                                                     780
taggttgatt tetttettea getttetgae atgteeagee eatetetaat gaggaeteee
                                                                     840
agatcatcac tttatggctg ttaggtgttt cccatatgaa attagaggag ctgggtcagg
                                                                     900
gagacaaaag tottotatta gtottatgga tagotootoo ttgagtgtat tttgtgcaaa
                                                                     960
agattaagaa gctggactct actgccatta aagctgagag aatcctaagg ttaaaaaaaa
                                                                    1020
1080
aaaaaaaaa
                                                                    1089
```

```
<211> 1772
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (1480)
<223> n equals a,t,g, or c
<400> 58
tegacecacg cgtccgggag agaacgccgg tggcggggct ggtagcccgg cagccgcagt
                                                                       60
ggggccacga gcgctggctg agggaccgag ccggagagcc ccggagcccc cgtaacccgc
                                                                      120
geggggageg ceeaggatge egegegggga eteggageag gtgegetaet gegegegett
                                                                      180
ctcctacctc tggctcaagt tttcacttat catctattcc accgtgttct ggctgattgg
                                                                      240
ggccctggtc ctgtctgtgg gcatctatgc agaggttgag cggcagaaat ataaaaccct
                                                                      300
tgaaagtgcc ttcctggctc cagccatcat cctcatcctc ctgggcgtcg tcatgttcat
                                                                      360
ggtctccttc attggtgtgc tggcgtccct ccgtgacaac ctgtaccttc tccaagcatt
                                                                      420
catgtacatc cttgggatct gcctcatcat ggagctcatt ggtggcgtgg tggccttgac
                                                                      480
                                                                      540
cttccggaac cagaccattg acttcctgaa cgacaacatt cgaagaggaa ttgagaacta
ctatgatgat ctggacttca aaaacatcat ggactttgtt cagaaaaagt tcaagtgctg
                                                                      600
tggcggggag gactaccgag attggagcaa gaatcagtac cacgactgca gtgcccctgg
                                                                      660
accortggcc tgtggggtgc cctacacctg ctgcatcwgg aacacracag aagttgtcaa
                                                                      720
caccatgtgt ggctacaaaa ctatcgacaa ggagcgtttc agtgtgcakg atgtcatcta
                                                                      780
cgtgcggggc tgcaccaacg ccgtgatcat ctggttcatg gacaactaca ccatcatggc
                                                                      840
gggcatcctc ctgggcatcc tgcttcccca gttcctgggg gtgctgctga cgctgctgta
                                                                      900
catcacccgg gtggaggaca tcatcatgga gcactctgtc actgatgggc tcctggggcc
                                                                      960
                                                                     1020
cggtgccaag cccagcgtgg aggcggcagg cacgggatgc tgcttgtgct accccaatta
                                                                     1080
gggcccagcc tgccatggca gctccaacaa ggaccgtctg ggatagcacc tctcagtcaa
                                                                     1140
catcgtgggg ctggacaggg ctgcggccct ctgcccacac tcagtactga ccaaagccag
ggctgtgtgt gcctgtgtgt aggtcccacg gcctctgcct ccccagggag cagagcctgg
                                                                     1200
gcctccccta agaggctttc cccgaggcag ctctggaatc tgtgcccacc tggggcctgg
                                                                     1260
ggaacaaggc ceteetttet ceaggeetgg getaergggg agggagagee tgaggetetg
ctcagggccc atttcatctc tggcagtgcc ttggcggtgg tattcaaggc agttttgtag
                                                                     1380
cacctgtaat tggggagagg gagtgtgccc ctcggggcag gagggaaggg catctgggga
                                                                     1440
                                                                     1500
agggcaggag ggaagagctg tccatgcagc cacgcccatn gccaggttgg cctcttctca
gcctcccagg tgccttgagc cctcttgcaa gggcggctgc ttccttgagc ctagtttttt
                                                                     1560
                                                                     1620
tacgtgattt ttgtaacatt catttttttg tacagataac aggagtttct gactaatcaa
agctggtatt tccccgcatg tcttattctt gcccttcccc caaccagttt gttaatcaaa
                                                                     1680
1740
aaaaaaaaa aaaaaaaaa aagggcggcc gc
                                                                     1772
<210> 59
<211> 1279
<212> DNA
<213> Homo sapiens
<400> 59
ggcacgagtt tattttaaaa tgtacaataa attattgttg actgtagtaa ccctgttttg
                                                                       60
ctatcaaata gtagatttta tttattctaa ctatattttt atatccatta accatccccc
                                                                      120
                                                                      180
acateceeee aatattttag ttttttgagg aactecagtg cateattaat acceaetttt
                                                                      240
cctccctcct cctctctcac cactccccaa gccatttcta attcgtctcc aagccttgtg
taattgttta ttaatattta tttatttggc tgggtgcggt ggcttacacc tgtagtccca
                                                                      300
gcactttggg aagccgaggc ggctgggtcg cctgaggtca ggagttcaag accagcctgg
                                                                      360
ccaacatggc aaaaccccgt ctctgctaaa aatacaaaaa ttagctgggc gtggtgatgc
                                                                      420
acacctgtaa tcccaaccac ctgcgaggct gaagcaggag aatcgcttga acccaggaag
                                                                      480
tggaggaggt tatatatata tgagacatat atacacacac acacacaca aaatataaaa
                                                                      540
tatgtgttga tatatatat taaacatata tatatgttta tttgtcccct ctttcccatt
                                                                      600
ctcattgctg ctgtccctat taagaccttt atcatcattt ctttggccta attagaatag
                                                                      660
```

		33			
cctctggtct tctagtttt tgtgatcatt caaaattgc tgaggtgtac ccaacagct	t agtttggaga	taatatattc	ctgtttcaaa	accctcccct	720 780 840
tagaaaaggg ggaaaggtg gaaagaagta gacatggga	_				900 960
ttgggatcct gttgatcta					1020
tgtccactca gggttaaat					1080
ttgaaggcag catgctcgt acaaacactc tgcctagga				- - -	1140 1200
cctccactgt tgtcctgtg					1260
caaaaaaaaa aaaaaaaaa					1279
<210> 60 <211> 1539 <212> DNA					
<213> Homo sapiens				_	
<400> 60				•	
gaatteggea egagtatea	_				60 120
tagtaggtta taaaaattta acatcatact tatttttgt			_		180
cttgctgctg aaattgtac					240
atggtttacc tgagcccag					300
tggttttgct ttttcctct					360 420
gagcatgaga gcactttctf agagagtgtt tttttttctf					480
gacaggctat ctttcagtgg					540
ctctgagaaa tgtgtggct					600
ttgaaaaggg agaataatg	-	-			660
tgtaatgtac tgcacacaatatgccccagt tgtcccccag					720 780
atctgctttt tgtcccatti					840
atcacagtgc ccactctgga					900
aggtgtaaat ggtgctttgt					960
aggagagaat gagagcctgc					1020 1080
gggttgatag aaaacatcca aataaagaaa cagacttttg					1140
acaaaatgtg cggactgaat					1200
atcgcttccc caatgtttgt					1260
tgggaaaaac tcttgctac					1320
tgtccttaag ttaaaagaat tactgcaact tgaatcact					1380 1440
atttattaac acttgtatti	-				1500
attgtttttt accaacaaaa				-	1539
<210> 61 <211> 1937 <212> DNA <213> Homo sapiens					
<400> 61	+	+	220111111	agastteest	60
ggcacgagct gtagttgata tgttaaaaac aaataggatg					120
aactgaaaac tacctaaatg					180
ttggccaggg tctgttgttg	actctcgaag	agcacatagc	ccacttccta	gggactggag	240
gtgccgctac taccatgggt					300
gtgttgacac ccaacagcaa	caggeegaga	acagtgcagt	acccactgct	gacacaagga	360

```
gccaaccacg ggaccetgtt cggccaccaa ggaggggccg aggacctcat gagccaagga
                                                                          420
  gaaagaaaca aaatgtggat gggctagtgt tggacacact ggcagtaata cggactcttg
                                                                          480
  tagataatga, tcaggaaccc tattcaatga taacattaca cgaaatggca gaaacagatg
                                                                          540
  aaggatggtt ggatgttgtc cagtctttaa ttagagttat tccactggaa gatccactgg
                                                                          600
  gaccagetgt tataacattg ttactagatg aatgteeatt geccaetaaa gatgeaetee
                                                                          660
  agaaattgac tgaaattctc aatttaaatg gagaagtagc ttgccaggac tcaagccatc
                                                                          720
  ctgccaaaca caggaacaca tctgcagtcc taggctgctt ggccgagaaa ctagcaggtc
                                                                         780
 ctgcaagtat aggtttactt agcccaggaa tactggaata cttgctacag tgtctgaagt
                                                                         840
 tacagtccca ccccacagtc atgetttttg cacttatcgc actggaaaag tttgcacaga
                                                                         900
 caagtgaaaa taaattgact atttctgaat ccagtattag tgaccggctt gtcacattgg
                                                                         960
 agtcctgggc taatgatcct gattatctga aacgtcaagt tggtttctgt gcccagtgga
                                                                        1020
 gcttagacaa tctcttttta aaagaaggta gacagctgac ctatgagaaa gtgaacttga
                                                                        1080
 gtagcattag ggccatgctg aatagcaatg atgtcagcga gtacctgaag atctcacctc
                                                                        1140
 atggcttaga ggctcgctgt gatgcctcct cttttgaaag tgtgcgttgc accttttgtg
                                                                        1200
 tggatgccgg ggtatggtac tatgaagtaa cagtggtcac ttctggcgtc atgcagattg
                                                                        1260
 gctgggtcac tcgagacagc aaattcctca atcatgaagg ctacggaatt ggggatgatg
                                                                        1320
 aatactcctg tgcgtatgat ggctgccggc agctgatttg gtacaatgcc agaagtagcc
                                                                        1380
 tcacatacac ccatgctgga aagaaggaga tacagtagga tttctgttag acttgaatga
                                                                        1440
 aaagcaaatg atcttctttt taaatggcaa ccagctgcct cctgaaaagc aagtcttttc
                                                                        1500
 atctactgta tctggatttt ttgctgcagc tagtttcatg tcatatcaac aatgtgagtt
                                                                        1560
 caattttgga gcaaaaccat tcaaataccc accatctatg aaatttagca cttttaatga
                                                                        1620
 ctacgccttc ctaacagctg aagaaaaaat cattttgcca aggcacaggc gtcttgctct
                                                                        1680
 gttgaagcaa gtcagtatcc gagaaaactg ctgttccctt tgttgtgatg aggtagcaga
                                                                        1740
 cacacaattg aagccatgtg gacacagtga cetgtgcatg gattgtgcct tgcagctgga
                                                                        1800
 gacctgccca ttgtgtcgta aagaaatagt atctagaatc agacagattt ctcatatttc
                                                                        1860
 atgacacatg tgaagaggca tcgtggactt ttttctactc aattccagcc aatgttgaaa
                                                                        1920
 aaaaaaaaa aaaaaaa
                                                                        1937
 <210> 62
 <211> 1452
 <212> DNA
 <213> Homo sapiens
<400> 62
ccacgegtcc gcggacggtg gacggacgcg tgggtggacg cccaccatgc cgccccgagg
                                                                         60
gccagcctct gagctgctgc tgctgcggct gctcctgctg ggggcggcca ccgctgctcc
                                                                        120
cttggcaccg agacceteca aggaggaget gaccegetgt etggcagagg tggtcacaga
                                                                        180
ggtgctgacc gtgggccagg tccagagagg accctgcact gctcttctcc acaaggagtt
                                                                        240
gtgcgggaca gagccccacg gctgtgcgtc caccgaggag aaaggcctgc tgcttgggga
                                                                        300
tttcaagaag caggaggctg ggaagatgag gtccagccag gaggtgaggg atgaggaaga
                                                                        360
ggaggaggta gcagagagga cccacaagtc tgaggtccag gaacaagcca tccgcatgca
                                                                        420
agggcatcgc cagctccacc aggaggagga cgaggaggag gagaaggagg agaggaagag
                                                                        480
ggggcccatg gagacctttg aggacctgtg gcagcggcat ctagagaatg gaggggacct
                                                                        540
ccagaagegg gtggcagaga aggccagtga caaagagaeg gcccagttcc aggcagagga
                                                                        600 _
gaagggggtg cgggtgctgg gcggggaccg cagcctgtgg cagggggccg agagaggcgg
                                                                        660
aggagagagg cgcgaggact tgccccacca ccaccaccac caccaccagc cagaggctga
                                                                        720
gcccaggcag gagaaggagg aggcttcgga gagggaggtg agtaggggga tgaaggagga
                                                                        780
acaccaacac agtttggagg cagggttgat gatggtcagt ggagtcacaa ctcacagcca
                                                                        840
ccggtgttgg ccctgcacca ccagatccat cactagtgga tcacagtggc caagactgac
                                                                        900
accacgactg gctaacaact teegtgeaag geetttaeet tataetteea cactaetgta
                                                                        960
tggactacag caaccaagat ggcaccattg cacagaagca agccaccatc actagcaagt
                                                                       1020
tggccactgt gaaaagtggc tgctgtgcct acttcactag gtgacagaca gacaccattg
                                                                       1080
ctgggtcatg gaaaacaaga tgtcaccatg attggtggca ccaaaagtgc cgtaacaggg
                                                                       1140
tgggcatggt ggctcacacc tataatccta gggagggtta atcctttcag aggccaaggt
                                                                       1200
gggagaatcc cttgaggcca ggagtttgag accagcgtgg gcaacatagt gaaaccgtga
                                                                       1260
ctctacaaat aatttaaaaa attagccagc aatggtggcg cacgcctgtg gtcccagctc
                                                                       1320
tcaggaggct gaggtggtgg gattgcttga acccgggagt ttgaggctgc attgagtcat
```

gattgtgcca cagcagtccc gcctgggcca cagagcaaaa ccatcttaaa aaaaaaaaa

1380

```
aaaaaaaaa aa
                                                                        1452
 <210> 63
 <211> 971
 <212> DNA
 <213> Homo sapiens
 <400> 63
 gataaaatct tggtgtgtca gtgggtgaga cagtgccata tcccactcgg tatcatggcc
                                                                          60
 ctagaaacat gagcttttga tgaaggcaat aaaatggagc ttagaaaaaa cactattttg
                                                                         120
 ataatatact atattagcag aatgttgttt ttgagatcca tcttatggct ctcttcatta
                                                                         180
 ttcttttgtc attttgtacc tacatcccat tcattgggat tccaaaatat aacttctgtg
                                                                         240
 tataatgcca ctctgcaaca aacagtgttc cagcatgatt ctaagacagt tactacatgc
                                                                         300
 tttacgtgaa acatgatcca aaatatcaat caccctcaag tcctttgtat ttagaatatt
                                                                         360
 ctgactatat attcatgaaa gcayttcaac ttagagacat cttcattcaa aaggtgagta
                                                                         420
 teetteeata tetgtetggt gtacacaatg atttacgtge tatgetegaa caaagataaa
                                                                         480
 caaaattcat taagaagctt ccatttcaat agcacakgtt taatttgaat actgagttag
                                                                         540
 tacttgttct gtgsctagta ttaaaagcaa agtaataaag gctttgtttc atgatctttg
                                                                         600
gtacatctta ccactctcgc cagcaaaatt ttaaaatatt aataaatatt tgtaacattt
                                                                         660
tgtttctttt gtcccttttt taaaaaatgt tttcttgtct gccttcccca gattttgcta
                                                                         720
tctgaggcca ttttctcaga aggggttgtg gggaggaaca ggtagtgagt atttagatta
                                                                         780
gactcccctc tgtagagcag agccccatga cttctatagg ccctagacac ttttgccttg
                                                                         840
gtgggttcct ttctccatag aaaaagtaaa acctttattt catgtctgca ttggtataaa
                                                                        900
gattaatacc attattattg ktatcctcat tttttccttc tgattgaaaa aaaaaaaaa
                                                                        960
agggcggccg c
                                                                        971
<210> 64
<211> 1723
<212> DNA
<213> Homo sapiens
<400> 64
cggcacgagg tggaaactgt ttcagcaaag gttcttgtat agagggaata gggaatttca
                                                                         60
aaataaaaaa ttaagtatgt tctgtgtttt cattttaact ttttttatgg tgtttaattt
                                                                        120
gtggttggct gcaactgtgt atcatgtata tggaacttgt aaaaaagttc tcgacattca
                                                                        180
gatcttaaga gatgaaatca cttttaccta taaaaaccac ttttattgcg gtttgactgc
                                                                        240
attgagctct aggatattaa atgatatcac taatattttg catgtaattt gctcatttga
                                                                        300
gtgagggcac tttttttgta catatgatgg ggccaatgca caatactttt atcacaatca
                                                                        360
actttttctt tgtatcccta tttcaatgag cagtcagtct caagaggtta ctgcacttca
                                                                        420
gttctaacta gacatttgta ctaaggtatt tcagttatgt aaactcagcc tgggcacttt
                                                                        480
ctgataactg taaaatgttt tataagatca tgattattga agatacattt tggaaaattt
                                                                        540
taaatgttcg tgagcagctt aactactttt gtatctagcc ttttttaagt atcttgttac
                                                                        600
atttactttt ttaaatgaag aaattacaga agaaatgtca agtaatattg aagaaacaat
                                                                        660
agtttttatt tatgtagttg tacattttta aactaagggc aatacactga catggttatg
                                                                        720
tgcataaaaa ttttgactta aagaactgga agtttatata cacctggact ataagaaacg
                                                                        780
gaagaaaatc agtccacatt ttacagttag cagaatccta aatggcactg gcctggccac
                                                                        840
cttttcattt tacaaatggg gaagtgaatg tgacccctta cttggcatag gaagttaact
                                                                        900
tacacctaat aactgacagg tttttgtttg atgacctatt aattatgtag cctaggatta
                                                                        960
atatcccaaa attactctgg tttaagtagc tttattcagt ggcataataa cactgttttc
                                                                       1020
ttccttaagt cttcaatgaa gtgacttaaa acagtcactt tacatattaa aaatgaggag
                                                                       1080
agcaattete tggaatetet cettteagtt cetttgtagg atttetggee ttgaggatag
                                                                       1140
tetteatgtt caaaggeact atgettttat tatataactt cetteagaag actgaaceae
                                                                       1200
atgatattet cagecetgtt aacactaaaa atatttaaaa etgaatgata gtagtgaete
                                                                       1260
attgtattac ttaaaactta tataacacgc tgtattagat gtgtgtaaat tagccaaagg
                                                                      1320
ttattttaca aagtgagaca ttggttttta tgtctaaatg ctatttctga ataaatgaaa
                                                                      1380
tagtaattag atcaagagct gattagcatc aatgtgtttg aaagatataa aatttataca
```

tcaccttaac ctctgtatgc acatgatggg attgataaaa tattaaatga gaacaaacta

1440

aaaatattt aatacttct	a aaataatgo a _, ataatagta	a caatgtett a aagatttt	a agtcttccta	a aatcaagati a atcataaaa	t tactgaaatg t ttggttaaaa c ggttctaaat	1560 1620 1680 1723
<210> 65 <211> 255 <212> DNA <213> Home						
<400> 65						
	a godttogati	t taaaaaa				
gacgraatg	a gegeeete	L Lggccagtgg	g tgggcggttg	ccacagetgg	tttagggccc	60
taccacctt	ggeeeeetig	c caggaggaga	a cageeteeeg	gcccggggag	gacaagtcgc	120
ggccacctt	ggeegeega	gigatteett	gggacggtcc	gttteetgee	gtcagctgcc	180
tagaccaatt	tatoggaa	g gricaggeeg	g gctcccctt	cctggtctcc	cttctcccgc	240
tttgacccac	. caccyggagg	g agailgicit	ccagggctag	caattggact	tttgatgatg	300
tettetete	totaatooo	- aycayycaac	gtgatttcaa	agctgggctc	agcctctgtt	360
gataataaaa	, tytaategea	a aaacccattt	tggagcagga	attccaatca	tgtctgtgat	420
ggcggcgaga	aayaaggiga	cacggaaatg	g ggagaaactc	ccaggcagga	acaccttttg	480
cigigatyge	: egegleatga	Lggcccggca	aaagggcatt	ttctacctga	cccttttcct	540
atataataa	acalguacac	tettettege	ctttgagtgc	cgctacctgg	ctgttcagct	600
greteergee	atecetgtat	ttgctgccat	gctcttcctt	ttctccatgg	ctacactgtt	660
gaggaccagc	ttcagtgacc	ctggagtgat	tectegggeg	ctaccagatg	aagcagcttt	720
catagaaatg	gagatagaag	r ctaccaatgg	r tgcggtgccc	cagggccagc	gaccaccgcc	780
tegtateaag	aatttccaga	taaacaacca	gattgtgaaa	ctgaaatact	gttacacatg	840
caagatette	cggcctcccc	: gggcctccca	. ttgcagcatc	tgtgacaact	gtgtggagcg	900
cttcgaccat	cactgcccct	gggtggggaa	. ttgtgttgga	aagaggaact	accgctactt	960
ctacctcttc	atcetttete	tatacatact	cacaatctat	gtcttcgcct	tcaacatcgt	1020
ctatgtggcc	ctcaaatctt	tgaaaattgg	cttcttggag	acattgaaag	aaactcctgg	1080
aactgttcta	gaagtcctca	tttgcttctt	tacactctgg	tccgtcgtgg	gactgactgg	1140
atttcatact	ttcctcgtgg	ctctcaacca	gacaaccaat	gaagacatca	aaggatcatg	1200
gacagggaag	aatcgcgtcc	agaatcccta	cagccatggc	aatattgtga	agaactgctg	1260
tgaagtgctg	tgtggcccct	tgccccccag	tgtgctggat	cgaaggggta	ttttgccact	1320
ggaggaaagt	ggaagtcgac	ctcccagtac	tcaagagacc	agtagcagcc	tcttgccaca	1380
gagcccagcc	cccacagaac	acctgaactc	aaatgagatg	ccggaggaca	gcagcactcc	1440
cgaagagatg	ccacctccag	agcccccaga	gccaccacag	gaggcagctg	aagctgagaa	1500
gtagcctatc	tatggaagag	acttttgttt	gtgtttaatt	agggctatga	gagatttcag	1560
gtgagaagtt	aaacctgaga	cagagagcaa	gtaagctgtc	ccttttaact	gtttttcttt	1620
ggtctttagt	cacccagttg	cacactggca	ttttcttgct	gcaagctttt	ttaaatttct	1680
gaactcaagg	cagtggcaga	agatgtcagt	cacctctgat	aactggaaaa	atgggtctct	1740
tgggccctgg	cactggttct	ccatggcctc	agccacaggg	tccccttgga	cccctctct	1800
tccctccaga	tcccagccct	cctgcttggg	gtcactggtc	tcattctggg	gctaaaagtt	1860
ttcgagactg	gctcaaatcc	tcccaagctg	ctgcacgtgc	tgagtccaga	ggcagtcaca	1920
gagacctctg	gccaggggat	cctaactggg	ttcttggggt	cttcaggact	gaagaggagg	1980
gagagtgggg	tcagaagatt	ctcctggcca	ccaagtgcca	gcattgccca	caaatccttt	2040
taggaatggg	acaggtacct	tccacttgtt	gtatttatta	gtgtagcttc	tactttgtat	2100
cccatccact	ctgacaccta	agccccactc	ttttcccatt	agatatatgt	aagtagttgt	2160
agtagagata	ataattgaca	tttctcgtag	actacccaga	aacttttta	atacctgtgc	2220
cattctcaat	aagaatttat	gagatgccag	cggcatagcc	cttcacactc	tctgtctcat	2280
ctctcctcct	ttctcattag	ccccttttaa	tttgtttttc	cttttgactc	ctgctcccat	2340
taggagcagg	aatggcagta	ataaaagtct	gcactttggt	catttcttt	cctcagagga	2400
agcctgagtg	ctcacttaaa	cactatecee	tcagactccc	tgtgtgaggc	ctgcagaggc	2460
cctgaatgca	caaatgggaa	accaaggcac	agagaggctc	tcctctcctc	tactataca	2520
cgatgtaccc	tcaaaaaaaa	aaaaaaaaa				2550

```
<212> DNA
  <213> Homo sapiens
  <400> 66
  ggcacgagca cattttagtg tacattttta gaatatattt aaaacaataa gatagtctga
                                                                         60
  attggatggt tgagtaacct ttaaactcat ctggtaaacc tctaatgtat agtagaaata
                                                                        120
  atttgaaagc ttttaatgta taatagtact tacttcagga aaataatttg atgtttcatt
                                                                        180
  gttggtctct ttttctatat tatttcagcc taagtctatc ttcataccac aggaaatgca
                                                                        240
  ttctactgag gatgaaaatc aaggaacaat caagagatgt cccatgtcag ggagcccagc
                                                                        300
 aaagccatcc caagttccac ctagaccacc acctcccaga ttacccccac acaaacctgt
                                                                        360
 tgccttaggt aatggtggag ggtgacagca aatatgttac caggttttca tactatgggg
                                                                        420
 agaaaaaaaa ctttctttta agagattatt tgaaattctt ttggtggagg acagaaggaa
                                                                        480
 agcagtggct atggagatgt tttctgcttt ttgcctacta gcttaaagtg tttttatgac
                                                                        540
 aggatteeet atgaeaeagt etgagatatt ttgteeteat tteteattte atatttagee
                                                                        600
 ttctctcttc tagagactgg ttccccattc atttagctac ggtgtggaaa caatgcaaat
                                                                        660
 taaactatga acaaacatgg aaaatgtgtt ttgcgtctag gttacttctg ttttagaaga
                                                                        720
 gagtacettg tectaactee ttattteatt taateattte taaaaaaata attggtatta
                                                                        780
 titgctaggt atttgcctcc aaattaatac tagaaggtgc tattttaaca ctgtaaagac
                                                                        840
 tcctctgtgt ttatccagaa gaagcaattt taaaaaagag caactaggct gggcatggtg
                                                                        900
 gctcacacct gtaatcccag cactttggga ggccgaggca ggtggatcac ctgaggtcaa
                                                                        960
 gagtttgaga ccagcctgac caacatggtg aaactccgtc tctactaaaa aaaaaaatac
                                                                       1020
 aaaattagct gggcgtggta gcgcatgcct gtaatcctac ttgggagact aaggcaggag
                                                                       1080
 aatcgcttgc ttgaacctgg gaggcggagt ttgcactgag ccaagatcac gccattgcac
                                                                       1140
 1192
 <210> 67
 <211> 1543
 <212> DNA
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (76)
 <223> n equals a,t,g, or c
<400> 67
cttgactgtg ttttattatt tcatggcttg tatgagtgtg actgggtgtg tttctttagg
                                                                        60
gttctgattg ccagtnattt tcatcaataa gtcttgcaaa gaatgggatt gtcattcttc
                                                                       120
acttcagcac agttctagtc ctgcttctct ggagtagggt tgttgagtaa ggttgcttgg
                                                                       180
gttgtgcatt gcacaagggc acatggctgt gaggtgtatc ctggcggggg gctgtctacc
                                                                       240
tgcagtgagg ggcacctttt ctgttttgct caaaggcatg tataagccaa tgggtgacct
                                                                       300
tatttcctgt gtcttcaggt gtgtggcagg gggcctgggg tggggaggtg gggcgagcga
                                                                       360
gcagtgtgtg gaaagccttg ttgtcacctg aagcacgcca ggtccagatt gaccaatggt
                                                                       420
tttctcactt cagggccmac ccacgccccc tttctgctga ggtttgggtg ccatctagtg
                                                                       480
gtgggatggg acttggttga ctacatttaa ggtaaggtgg acccagcaac tcccagaaac
                                                                       540
aacteegggg acaccaetee ceateacaet ecacacegag eetggtgeee ggtetgtgee
                                                                       600
cgagctcagc gggaccagga agggatgggc cctgccaggg ttgcccctgc actgtgcatt
                                                                       660
ctcgcctggg aggcacaagt tctttcatct gcttttcctt cagaggtgct gagcccacgc
                                                                       720
catagecect gtgggatggt ggggggggg gegaecegaa caacagtgea gteggtateg
                                                                       780
agattgggga gaggagcgag tecaaggaga aggteatgag tttettttta etegtgttga
                                                                       840
ataataacaa taacaataac aatatggaaa ccaccgcaaa cttggagaaa agttgtaagc
                                                                       900
acagtaaaga gaagetteet tetgagteae ttgagtggtt geegttetgg ceetgeaece
                                                                       960
tctgtgcttt gggacggcgt ccaacccgca ttcatgtcag gagtgagtcg cacgtggctt
                                                                      1020
tgtggtcatg gcgacttaat ctgcctggac ggtggctccg tctccctggg cttagacgac
                                                                     1080
cttggcactt ctggagataa gcccatggct cccaggttgt gttcatgtga cgtttccttg
                                                                     1140
tggtaggttc tgggtctgcg ttttgtctag gagtgtcaca ggatggacac tgcctcctgg
```

caggggctgc ccaatgcagt tagcctcctg ctggtgttct ctcttgttgc ttggtgaagg

tggccctggt cagcttctcc actgcccagt gaacgacccc tttgtaatga atgagtgggg

1200

1260

```
38
  aggtagtgtg aagegatgee aatateeeat eeetgteaaa etgeetttae ttttteette
                                                                         1380
  cttecttget eccaectgtg tggatectgg tecettettg tatteaggge tgtggtetgt
                                                                         1440
  tatgacattt, actotoaggo toaggtootg ottgtttggo cogtgggago coottottot
                                                                        1500
  gccttttgtg ttkttttggt atgtacctac attatttaac tgg
                                                                        1543
 <210> 68
 <211> 1282
 <212> DNA
 <213> Homo sapiens
 <400> 68
 ggcacgaget gggtccggtc aaccgtcaaa atgtccaaag aacctctcat tetetggetg
                                                                          60
 atgattgagt tttggtggct ttacctgaca ccagtcactt cagagactgt tgtgacggag
                                                                         120
 gttttgggtc accgggtgac tttgccctgt ctgtactcat cctggtctca caacagcaac
                                                                         180
 agcatgtgct gggggaaaga ccagtgcccc tactccggtt gcaaggaggc gctcatccgc
                                                                         240
 actgatggaa tgagggtgac ctcaagaaag tcagcaaaat atagacttca ggggactatc
                                                                         300
 ccgagaggtg atgtctcctt gaccatctta aaccccagtg aaagtgacag cggtgtgtac
                                                                         360
 tgctgccgca tagaagtgcc tggctggttc aacgatgtaa agataaacgt gcgcctgaat
                                                                         420
 ctacagagag cctcaacaac cacgcacaga acagcaacca ccaccacacg cagaacaaca
                                                                         480
 acaacaagcc ccaccaccac ccgacaaatg acaacaaccc cagctgcact tccaacaaca
                                                                         540
 gtcgtgacca cacccgatct cacaaccgga acaccactcc agatgacaac cattgccgtc
                                                                         600
 ttcacaacag caaacacgtg cctttcacta accccaagca cccttccgga ggaagccaca
                                                                         660
 ggtcttctga ctcccgagcc ttctaaggaa gggcccatcc tcactgcaga atcagaaact
                                                                         720
 gtcctcccca gtgattcctg gagtagtgct gagtctactt ctgctgacac tgtcctgctg
                                                                         780
 acatccaaag agtccaaagt ttgggatctc ccatcaacat cccacgtgtc aatgtggaaa
                                                                         840
 acgagtgatt ctgtgtcttc tcctcagcct ggagcatctg atacagcagt tcctgagcag
                                                                         900
 aacaaaacaa caaaaacagg acagatggat ggaataccca tgtcaatgaa gaatgaaatg
                                                                         960
 cccatctccc aactactgat gatcatcgcc ccctccttgg gatttgtgct cttcgcattg
                                                                        1020
 tttgtggcgt ttctcctgag agggaaactc atggaaacct attgttcgca gaaacacaca
                                                                        1080
aggctagact acattggaga tagtaaaaat gtcctcaatg acgtgcagca tggaagggaa
                                                                       1140
 gacgaagacg gcctttttac cctctaacaa cgcagtagca tgttagattg aggatggggg
                                                                       1200
catgacactc cagtgtcaaa ataagtctta gtagatttcc ttgtttcata aaaaagactc
                                                                       1260
acttaaaaaa aaaaaaaaa aa
                                                                       1282
<210> 69
<211> 1440
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (323)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> -(337)
<223> n equals a,t,g, or c
<400> 69
gcttccacac agtatgacag acctctagac tagaagtaca tgatgaaaat agttggtaat
                                                                         60
taagataaaa ttgatttaat ttactttagt cctgaacatt gaatacttgt caggatgcca
                                                                        120
ttgcaataat ggcatatatc ggagccaaat ggtcaaatga tacacagagc caggagccta
                                                                        180
gcagccttgt ccagtttgat gctctatacc aagcttgtcc aaccagtggc ctgcatatca
                                                                        240
catgtggccc aggacggctt tgaatatggc ccaacacaaa ttcataaact ttcttaaaac
                                                                        300
aatatgaget tatgaaattt tynteatgat atttttnett ttttetttttt
                                                                        360
taactcatya gctatcatta gtgttaatgt attttatgtg tggcccaaga cagttcttcc
                                                                       420
```

			39			
aatgtggccc	aggaaagcca	a aaagattgga	a cacccctgc	t ttataccct	t tacactgtcc	480
tcggtagaga	aaaaaaaat	.gcttcaaaga	a atcgctaati	t ttaaagaag	a gtagatgata	540
aaagttacca,	aaacaaacco	g aaaaatttat	tgtatttgg	g attttagaa	a atccaactat	600
taggaaccag	aatttagtct	gctacagtag	g gaaaacaat	g tgaatattc	a catcatcaag	660
ttgatgttac	ataaccttag	g aaagctacto	g ctgaatctt	tatatcaat	g gattctattt	720
ttaaatactt	ttcataataa	tcattattt	atgacatgac	c tataatatt	a aatctgttag	780
gactagaaga	atttttacct	: ttttcaagga	aattgttagt	agttcagca	a acagtttcta	840
ctctgtgaca	taagcccagg	r aaagtgaagt	ctcttgaaaa	a cttttttc	t ctaaccttca	900
ttcttgatgg	caagcaacta	tgtgcttaga	acgatggtt	tcaactttg	g ttgcacctta	960
actctgaaac	ttaaaaaaaa	gataccccct	gagattetga	a tttaattgg	t gtggagtata	1020
atctgggcct	tgataggggt	cagagetett	caggtgattc	taatgtgca	t ccgtgattga	1080
gaattgctag	ttaagaagct	gtttaatgto	cttaaagaac	r aaactaatt	t ttctttctcg	1140
gagttgtatt	catcttcaac	agatattacw	tagtcataac	r aqaaaaata	aaaatcagga	1200
aaagcgtata	tagagttatg	aaagaggggt	tatgaattat	aaacagttt	atgattaagt	1260
ccaatcgttt	aattgttatt	gaaagatagt	cttatattt	taagtccta	tttgctattt	1320
aacccttgtt	tatacttttg	ttcagtgctt	tgctctcctg	gtgtcaccti	cataataata	1380
attcaacttt	gatcaataaa	ataaacaatc	ttctggaaaa	aaaaaaaaa	a aaaactcgta	1440
<210> 70						
<211> 1068						
<212> DNA						
<213> Homo	ganiene			٠		
\Z13> 1101110	saprens					
<400> 70						
gcaggcatga	accaccacac	CCCCCCCCC	atatatassa	2+++2+2+2		6.0
ccctgatttt	ccaaggacgg	aactgaaggc	cctcccgact	attiataata	cgagaattat	60
ctttttcagc	ataaaaaaa	agactcgcgg	acactaaaa	aagaaggaga	at against	120
tccggaaggt	gctgatgaag	acaggetgg	tactaataat	aggeergage	graggegaet	180
tcacagetge	cctattccat	acceptac	tacactacat	gergggeeat	grgagerrea	240
tggctctgca g	gtactgcgtg	gtcaacatcc	totototoac	ttccccatc	caayatgegg	300
cttcaggcat	cacaaccatc	gtattatcac	actacctac	tagaagaa	gtggtcatca	360
cagtgtttag (ctcaaacata	acctatacta	teettetet	gaggaggagg	etgegetgga atgaggatat	420
tggcctccat	caccataacc	tttgccaccc	adddaaadd	actoctocct	gestssatt	480
ttgggagctc t	cgaactactg	gcctcgcac	ctgactgtcc	cttccacccc	acacquattt	540
atagctccag (cctatacctc	tagaacatca	ccctagtact	ctacatacca	acacycattt	600 660
ttgctgtacg o	ctgtgctcag	ctcacccacc	agctgctgga	actagaacca	taataaaaa	720
aaagcagcca d	cacatgatg	Caddadaacc	cagagetggt	gaagaaaaa	cacctactas	720
gctgcaccag d	etctgagect	ctgaccctct	gagagatgat	ggagggccgc	gaccigciga	
ccactaggac d	ctgcaagca	actotoctot	gtgagaegae	caggatteet	ggcccgatgg	840
tgagagggct c	aatggaccc	tcaaaaaaccc	aagtggggt	ttcaaccctc	tagagagaga	900 960
cccagcccac t	gcactgaaa	tgagacttta	ttctcaaatt	attaaaaaa	acacacates	
tcaaaaaaa a	laaaaaaaaa	ададададад	aaaaaaaaa	2222222	acagagatge	1020
		aaaaaaaaa	uaadaaaaaa	aaaaaaaa		1068
					-	
<210> 71						
<211> 1948		-				
<212> DNA						
<213> Homo s	apiens					
	_					
<400> 71						
cgcgtccgga g	ctgcagaga a	agaggaggtt.	aatataasac	acaddcadca	ccasacctac	60
cccgtgagct g	agggcctqc	agtetqeqqe	tggaatcagg	atagacacca	addcaddacc	120
cccagagatg c	tgaagcete 1	tttqqaaaqc	agcagtggg	cccacatacca	catectccat	180
geegeeeege e	gcccgtgaa a	acagagagg	taacacatta	caggtactaa	gaggggtggat	240
tgtgctgtgg c	tgggataca (tggctcttat .	etacataata	tagcaactac	cccatactac	300
cacctggggc c	aggtgcagc d	ccaaggacgt	acceadatec	tagaaacata	acttecarea	360
cagcttggga g	cccctggaa c	gcagagggcc	addcadcada (addactcctu	ccadcttoto	420
cttgtggaaa g	catececca d	ggacctgcca	totacaacca	acaaccacta	tacccaacat	
		22 - 23000	g-agecy	geageeeee	cycccaycci	480

```
40
 ctgggccagg cctggctgca gctgctggac actgcccagg agagcgtcca cgtggcttca
                                                                         540
 tactactggt ccctcacagg gcctgacatc ggggtcaacg actcgtcttc ccagctggga
                                                                         600
 gaggetette tgeagaaget geageagetg etgggeagga acattteeet ggetgtggee
                                                                         660
 accagcagec egacaetgge caggacatec acegaeetge aggttetgge tgeeegaggt
                                                                         720
 gcccatgtac gacaggtgcc catggggcgg ctcaccatgg gtgttttgca ctccaaattc
                                                                         780
 tgggttgtgg atggacggca catatacatg ggcagtgcca acatggactg gcggtctctg
                                                                         840
 acgcaggtga aggagettgg egetgteate tataactgea gecaectggg ecaagaeetg
                                                                         900
 gagaagacct tccagaccta ctgggtactg ggggtgccca aggctgtcct ccccaaaacc
                                                                         960
 tggcctcaga acttctcatc tcacttcaac cgtttccagc ccttccacgg cctctttgat
                                                                        1020
 ggggtgccca ccactgccta cttctcagcg tcgccaccag cactctgtcc ccagggccgc
                                                                        1080
 accegggace tggaggeget getggeggtg atggggageg eccaggagtt catetatgee
                                                                        1140
 teegtgatgg agtattteee caccaegege tteagecace eeeegaggta etggeeggtg
                                                                        1200
 ctggacaacg cgctgcgggc ggcagccttc ggcaagggcg tgcgcgtgcg cctgctggtc
                                                                        1260
 ggctgcggac tcaacacgga ccccaccatg ttcccctacc tgcggtccct gcaggcgctc
                                                                        1320
 agcaaccccg cggccaacgt ctctgtggac gtgaaagtct tcatcgtgcc ggtggggaac
                                                                        1380
 cattccaaca tcccattcag cagggtgaac cacagcaagt tcatggtcac ggagaaggca
                                                                        1440
 gcctacatag gcacctccaa ctggtcggag gattacttca gcagcacggc gggggtgggc
                                                                        1500
 ttggtggtca cccagagccc tggcgcgcag cccgcggggg ccacggtgca ggagcagctg
                                                                        1560
 cggcagctct ttgagcggga ctggagttcg cgctacgccg tcggcctgga cggacaggct
                                                                        1620
ccgggccagg actgcgtttg gcagggctga ggggggcctc tttttctctc ggcgaccccg
                                                                        1680
 ccccgcacgc gecetecect etgaccccgg cetgggette agecgettee teccgcaage
                                                                       1740
 agcccgggtc cgcactgcgc caggagccgc ctgcgaccgc ccgggcgtcg caaaccgccc
                                                                       1800
 gcctgctctc tgatttccga gtccagcccc ccctgagccc cacctcctcc agggagccct
                                                                       1860
ccaggaagcc ccttccctga ctcctggccc acaggccagg cctaaaaaaa actcgtggct
                                                                       1920
 tcaaaaaaaa aaaaaaaaa aaaaaaaa
                                                                       1948
<210> 72
<211> 1837
<212> DNA
<213> Homo sapiens
<400> 72
ccgggtcgac ccacgcgtcc gcccacgcgt ccgcagaatc aagagtaaaa gcaacccaga
                                                                         60
caactcttta atagtctgat gctactgtgc atattaatat ttaaagtcca cttgttatta
                                                                        120
ttttgcagat ccttttctgc attccttaat ctgaaagaga gatttttatt cttaatactt
                                                                        180
gtatggattt ttgtggcttt ttatgggtgt aaatattctc ctctctcgtt tgacagtttc
                                                                        240
aaaagcctag gttcataagc tctccatgaa taaatatgtt cttagtcatg tgatgtaaaa
                                                                        300
agatcgctta caaagcttgt gaaacctgag ccttcctttt gaacctttta ctacccatga
                                                                        360
gctcaggaac catacatgca aaattttatt cttgcgtcat gacttcagct tatgagggaa
                                                                        420
atgagctatg aatttaaatg actettetae tetataceaa gtttetatga aaataaaatt
                                                                        480
gtattttttc ctttttccta aaaggaaagt ttcatctgac tagtgtttct gccggtattt
                                                                        540
gttcccattg ttaaaagatt tgtttcttaa gattagcatt aaaatagaca tcctgttttt
                                                                        600
gaaggcatct ttttttgttt atactgtaat cccaaaaatg tccaactggc tgaatggcca
                                                                        660
agaaactccc ttgtaatttc ctaatagagc taaagttaac aagtcacctt aaagtctact
                                                                        720
aattccaatt aagttcacct tggagaaatt ttcattagtc tagtcctttg gcacttaccc
                                                                        780
aatacaccct taattaaagt tcttatgcat gggaccagtt gtatctatta taaagattat
                                                                        840
cataattcta agttttctct cccaccccca tttttttttc agggtgtgtt tccatataaa
                                                                        900
gatcgaaaaa gtccattttc ttttcatgta tcttcaagat ggaagatctt ttccttccct
```

tectteetee ettetteeet eceteactee etectteeet eceteactee etgeeteeet

cccttccttc ctttcttctt ccttccttcc ttttcagttt tatactactc agaagtttga

ggaggagaga gaatacatta aaatgtattc agccccagtt caggcactat atagtgctag

ctatgtgtta cttatttgga ttctcatgtg aacctggtga gatggactgg atcccacttt

acaaacgagg aacgagaagc ttagataagt taaacctttt ccaaattttc acatctttaa

atgatagagt caagttttga actaagatet gacttcagag ttettgetca ctagattgee

tttcaggtag tatttggagg cetetgeace tetectacea ggataettee eccategeat

tgtgtagctt ttctccattt catttctata gcactttgac atctagcaaa tgttattttc

teatetteet eetetteeta eetettgetg ettgtataaa tatettgtte aggetgaact

gagagaagta gtgtattcag aaaacttact atctcttttc ggctgggtgt ggtccctcac

960

1020

1080

1140

1200

1260

1320

1380

1440

1500

41	
acctgtaatc ccagcacttt gggaggccta ggtgggcgga tcacttgagg tcaggagttc ggggccagcc tggccaacgg gatgaaactt tgtctctact aaaagtgcaa aaattaggtg	1620 1680
gatgtggtgg ctgcacctgt tgtcccagct actcaggaag ctgaggtggg gagactcact	1740
tgaacctggg aggcggaggt tgcagtgggc cgggattgcg ccactgtact ccagcctggg	1800
tgagggagca agactctgtc tcaaaaaaaa aaaaaaa	1837
	1037
<210> 73	
<211> 1161	
<212> DNA	
<213> Homo sapiens	
<400> 73	
ggggaaacgg agctctgggt gtgatatttc ctctgcattt tcctgtcggg gtggtgaaat	60
aactggtttg aacccagtcc actggactcg aaagctcatg ctcagaagcc ccagggctcc	120
ctctaacttt cttggttgct gcaactcaga gagcgctgga atggacccag ggcatgctcc	180
tcatctcagc ggttcaggtt ttcattcttc tatctccatc cttctattta attctgtact	240
tactaagacc tgggggtaca gggaggggct tggagcctat ttgcccagct gctgaatggg gaggttggag agatggatac ttatggctcc agtaccagga gccaactgtt tcccttgaca	300
actggggaaa ctgaggcca cagagccaag gccacttgcc cgtggttacc taaagatgtt	360
aacgagaaat cogggtotgg aactcagate cetttgtate etgttteggt gttggtgtag	420 480
tttgttgctt tccctaagat gagcccagat agggaaactg aagtgcctgg gstcctggtt	540
gggtcttctg cggggagaga atggcgattc aactcccgtg tactgttgaa cttgacacaa	600
acacgeteae ateceagget geatacgtgt tttgetttag aaatgacatg aageettttg	660
actattttta agagaaagge aatggetgtg atattteece tgeaceteee teteggggee	720
acttggttaa atgtcaggaa agggagagta tttcctggtc aggaacattc agagcttgct	780
gggagctgaa gttttgtttt ccattaagta ggtattcggg gagtctattt ccctctgcct	840
cctctgtttc cctggaarct tgcgcttgac agttgcaggg aggaggggtt tgagaatgag	900
cagoogagat goodacgtat ogogtgoog ototaggagt ggoggggtgg otattttag	960
ccatcctgat tcagtagagg catttcagcg tttgttcaat atttaattat ccatctgaaa	1020
ttggcccatg tggccttcag tttggaagca gctctctgtg ctgtgatttc ccagttgcat aaataaggaa gtcaagggaa tctcaatagc cctccaaata ataataacga aaaaaaaaaa	1080
aaaaaaactc gacggcacgt a	1140 1161
	1101
<210> 74	
<211> 1450 ·	
<212> DNA	
<213> Homo sapiens	
<400> 74	
gggcacgagt caagattgtg aggtccaaga gaacagatca gggtcttaag aagattatct	60
ttcatagtgc ctatttgatg gtaatgatca taaatacagt ataatagaag gaaaaatatc	120
tggtggctta tatgcattgg tagtttctca tggtaataag cattttttt tctcttcctt	180
ttagcacaag tgcatacacc ttgatagcac caaatataaa ccggagaaat gagatacaaa	240
gaattgcgga caggagctgg ccaacctgga gaagtggaag gagcagaaca gagctaaacc	300
ggttcacctg gtgcccagac ggctaggtgg aagccagtca gaaactgaag tcagacagaa acaacaactc cagctgatgc aatctaaata caagcaaaag ctaaaaagag aagaatctgt	360
aagaatcaag aaggaagctg aagaagctga actccaaaaa atgaaggcaa ttcagagaga	420 480
gaagagcaat aaactggagg agaaaaaaag acttcaagaa aaccttagaa gagaagcatt	480 540
tagagagcat cagcaataca aaaccgctga gttcttgagc aaactgaaca cagaatcgcc	600
agacagaagt gcctgtcaaa gtgctgtttg tggcccacaa tcctcaacat gggccagaag	660
ctgggcttac agagattete taaaggcaga agaaaacaga aaattgcaaa agatgaagga	720
tgaacaacat caaaagagtg aattactgga actgaaacgg cagcagcaag agcaagaaag	780
agccaaaatc caccagactg aacacaggag ggtaaataat gcttttctgg accgactcca	840
aggcaaaagt caaccaggtg gcctcgagca atctggaggc tgttggaata tgaatagcgg	900
taacagctgg ggtatatgag aaaatattga ctcctatctg gccttcatca actgacctcg	960
aaaagcctca tgagatgctt tttcttaatg tgattttgtt cagcctcact gtttttacct taatttcaac tgcccacaca cttgaccgtg cagtcaggag tgactggctt ctccttgtcc	1020
	1080

```
tcatttatgc atgtttggag gagctgattc ctgaactcat atttaaactc tactgccagg
                                                                         1140
 gaaatgctac attatttttc taattggaag tataattaga gtgatgttgg tagggtagaa
                                                                         1200
 aaagagggag, tcacttgatg ctttcaggtt aatcagagct atgggtgcta caggcttgtc
                                                                         1260
 tttctaagtg acatattctt atctaattct cagatcaggt tttgaaagct ttgggggtct
                                                                        1320
 ttttagattt taatccctac tttctttatg gtacaaatat gtacaaaaga aaaaggtctt
                                                                        1380
 atattetttt acacaaattt ataaataaat tttgaaetee ttetgtataa aaaaaaaaa
                                                                        1440
 aaaaaaaaa
                                                                        1450
 <210> 75
 <211> 557
 <212> DNA
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (136)
 <223> n equals a,t,g, or c
 <400> 75
 gcttttttcg ggggaatgtt tacagaggct gtgggtcaga atgaagcaac accagaagct
                                                                          60
 atggagactg gggtttctgc tgtgtttcaa cttggttttt tgtgttctcg ggagaagaca
                                                                         120
 cccttggccg tgggcngtga gacctttgat gtgtgtttac gctgaccgcg agttgttggg
                                                                         180
 atggcttctg cggtgggtgg ttctcttggt attctcggtt ttgaagctta tttttagact
                                                                         240
 ctgaactctc cttcttggca ggagttgaat ccccctgggg gttttcaagt tgttcttgga
                                                                         300
 ctgctggttt ttgaaataga agcccctttg gtggggtccc ccataaaccc aggcgctggt
                                                                         360
 gcccaccttg tgatgtgaag gctcctgtaa cacgacctca ctttcctggc cccgcactac
                                                                         420
 tcacctgccc cacgggacac aggtacatgg cttctgggtg tctgtccccg ctgtacccag
                                                                         480
atctgccccc ttgcccttgt ccccagatcc tccactcgct cctaggaacc gtacccctcc
                                                                         540
caaaacaaaa aaaaaaa
                                                                         557
<210> 76
<211> 2483
<212> DNA
<213> Homo sapiens
<400> 76
cggcacgagc tcgtgccgct cgtgccggga ctggttaata gtgaagtcca taatgaagat
                                                                         60
ggaagaaatg gagatgtctc tcagtttcca tatgtggaat ttacaggaag agatagtgtc
                                                                        120
acctgcccta cttgtcaggg aacaggaaga attcctaggg ggcaagaaaa ccaactggtg
                                                                        180
gcattgattc catatagtga tcagagatta aggccaagaa gaacaaagct gtatgtgatg
                                                                        240
gettetgtgt ttgtetgtet acteetttet ggattggetg tgttttteet ttteeetege
                                                                        300
tctatcgacg tgaaatacat tggtgtaaaa tcagcctatg tcagttatga tgttcagaag
                                                                        360
cgtacaattt atttaaatat cacaaacaca ctaaatataa caaacaataa ctattactct
                                                                        420
gtcgaagttg aaaacatcac tgcccaagtt caattttcaa aaacagttat tggaaaggca
                                                                        480
cgcttaaaca acataagcat tattggtcca cttgatatga aacaaattga ttacacagta
                                                                        540
cctaccgtta tagcagagga aatgagttat atgtatgatt tctgtactct gatatccatc
                                                                        600
aaagtgcata acatagtact catgatgcaa gttactgtga caacaacata ctttggccac
                                                                        660
tctgaacaga tatcccagga gaggtatcag tatgtcgact gtggaagaaa cacaacttat
                                                                        720
cagttggggc agtctgaata tttaaatgta cttcagccac aacagtaaaa actggaagag
                                                                        780
atggatttaa agaagaaata totattgata tttcctatac tctcaatgaa gaggtatttc
                                                                        840
ctaataggag accttaaatt gaacaaacct aaagtttaca cttctaagag tacagttaaa
                                                                        900
agtatgtgga cctgcagttc ttgtaactct ccactctgtg ttaatgatat atttgtacta
                                                                        960
ggatetttta ettgaateta aatttaetgg ttgattteet tetecageet atcecetaca
                                                                       1020
gggaaaagct gatacttccc ctatagtaca ataaataatt atttaaaagt catagctcca
                                                                       1080
gtcactactg aaaacataat tttggtgata aacataattt gagaaactta atttctgaat
                                                                      1140
gtttttatag aaaattactg aaaatctatt actcatggaa gacttttaaa gagtaacctt
                                                                      1200
ttttcctgtt ttataaattc ccattgttat atggtagtat ttcagctaca caatatttta
```

```
gcttttagct agacatttat aggttttcat ttgttgaaat ggtaatcatc tgcatgtttt
                                                                       1320
 tgtcacttat ttcaggttag tgattgccta acacttataa gccaaaataa tctttgcaaa
                                                                       1380
 attccatacc taaaattttg aaagccccta atgttttcac acatctttct gtattagtta
                                                                      1440
 tagttttgtg aaatctttgt gtgatcttca aacattatca tttaatgtac aatactgtaa
                                                                      1500
 ataaactgtg catggetttt atacagettt agtaaatgte aaataaagtg gtacagaete
                                                                      1560
 attacaacaa gtttctcata aaaatacaat aaataggaaa atgaaattca gaaacccata
                                                                      1620
 gactgggaat aggttccagt tacagcttgg atctggcata aaataaattt gaaataaaat
                                                                      1680
 attttgatgc tccatttttt tatgttgctt ttcatactaa agaatggtgt agacttgttt
                                                                      1740
 gcaactgtag gtacccagtt atcaatttta tcaatgttta gagagaaatt attttttgg
                                                                      1800
 tagaaatgtc aagaaatcct taattgaatg tcattaaatg atggtggcca aaataaaacc
                                                                      1860
 tatttagaaa tttaatcact ttgcacatca cttggaatat gatgcctcta gtagttactt
                                                                      1920
 ttttatagtt ttctactttt ggttttattt aaaattgttt tcaaatatag attattgact
                                                                      1980
 tattcaactt tgctgtttta tattttcagt atcatttttc atttgttttt tttttttgt
                                                                      2040
 cttttcactt accaagttct agggacattt aaaatatgta ctaagtgtag gagtggttat
                                                                      2100
 gataccaaaa aatgtagctg ggttgagatt aatttcgttc tgttttctca tgacagaaat
                                                                      2160
 caggtttccc tttccccacc cctaagtgcc taacttaggt ctgaaacagc ctgtttatta
                                                                      2220
 gtctgactct ctcaaccata aaacataagc tttatttaat tctgccttta aacacactca
                                                                      2280
 ggtttcccct taattttcat attattttct gcaggttttc ttgagtatct tcaattcgtt
                                                                      2340
 gaatgtggtt tttggttttt ttttgtttta acactagtct tcccttaatt cattgctaac
                                                                      2400
 tcaagccatc cttactatta aacccaaatc agtcctttaa gttcattatg gcctttctag
                                                                      2460
 tatttaaaaa aaaaaaaaaa aaa
                                                                      2483
 <210> 77
 <211> 667
 <212> DNA
<213> Homo sapiens
<400> 77
ggcacgagca ctgcagctcc ctgagcactc tctacagaga cgcggacccc agacatgagg
                                                                       60
aggeteetee tggteaceag eetggtggtt gtgetgetgt gggaggeagg tgeagteeea
                                                                       120
gcacccaagg tccctatcaa gatgcaagtc aaacactggc cctcagagca ggacccagag
                                                                       180
aaggeetggg gegeeegtgt ggtggageet eeggagaagg aegaeeaget ggtggtgetg
                                                                       240
ttccctgtcc agaagccgaa actcttgacc accgaggaga agccacgagg caccaaggcc
                                                                      300
tggatggaga ccgaggacac cctgggccgt gtcctgagtc ccgagcccga ccatgacagc
                                                                      360
ctgtaccacc ctccgcctga agaggaccag ggcgaggaga ggccccggtt gtaggtgatg
                                                                      420
ccaaatcacc aggtgctcct gggaccggag gaagaccaag acacatctac caccccagt
                                                                      480
aggggctcca ggggccatca atgcccccgc cctgtcccaa ggcccaggct gttgggactg
                                                                      540
ggaccetece taccetgece cagetagaca aataaacece ageaggeegg aaaaaaaaa
                                                                      600
660
aaaaaaa
                                                                      667
<210> 78
<211> 1931
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (1212)
<223> n equals a,t,g, or c
<400> 78
cccgcagcag ctcccaggat gaactggttg cagtggctgc tgctgctgcg ggggcgctga
                                                                        60
gaggacacga getetatgee ttteeggetg eteateeege teggeeteet gtgegegetg
                                                                       120
ctgcctcagc accatggtgc gccaggtccc gacggctccg cgccagatcc cgcccactac
                                                                       180
agggagcgag tcaaggccat gttctaccac gcctacgaca gctacctgga gaatgccttt
                                                                       240
cccttcgatg agctgcgacc tctcacctgt gacgggcacg acacctgggg cagtttttct
                                                                       300
```

```
ctgactctaa ttgatgcact ggacaccttg ctgattttgg ggaatgtctc agaattccaa
                                                                        360
  agagtggttg aagtgctcca ggacagcgtg gactttgata ttgatgtgaa cgcctctgtg
                                                                        420
  tttgaaacaa acattcgagt ggtaggagga ctcctgtctg ctcatctgct ctccaagaag
                                                                        480
  gctggggtgg aagtagaggc tggatggccc tgttccgggc ctctcctgag aatggctgag
                                                                        540
  gaggeggeee gaaaaeteet eecageettt eagaceeeca etggeatgee atatggaaca
                                                                        600
  gtgaacttac ttcatggcgt gaacccagga gagacccctg tcacctgtac ggcagggatt
                                                                        660
  gggaccttca ttgttgaatt tgccaccctg agcagcctca ctggtgaccc ggtgttcgaa
                                                                        720
  gatgtggcca gagtggcttt gatgcgcctc tgggagagcc ggtcagatat cgggctggtc
                                                                        780
  ggcaaccaca ttgatgtgct cactggcaag gggtggccca ggacgcaggc atcggggctg
                                                                        840
  gcgtggactc ctactttgag tacttggtga aaggagccat cctgcttyag gataagaagc
                                                                        900
  tcatggccat gttcctagag tataacaaag ccatccggaa ctacacccgc ttcgatgact
                                                                        960
  ggtacctgtg ggttcagatg tacaagggga ctgtgtccat gccagtcttc cagtccttgg
                                                                       1020
  aggeetactg geetggtett cagageetea ttggagaeat tgacaatgee atgaggaeet
                                                                       1080
  tecteaacta ctacactgta tggaagcagt ttgggggget eeeggaatte tacaacatte
                                                                       1140
  ctcagggata cacagtggag aagcgagagg gctacccact tcggccagaa cttattgaaa
                                                                       1200
  gcgcaatgta cntctaccgt gccacggggg atcccaccct cctagaactc ggaagagatg
                                                                       1260
  ctgtggaatc cattgaaaaa atcagcaagg tggagtgcgg atttgcaaca atcaaagatc
                                                                       1320
  tgcgagacca caagetggac aacegeatgg agtegttett cetggeegag aetgtgaaat
                                                                       1380
 acctctacct cctgtttgac ccaaccaact tcatccacaa caatgggtcc accttcgacg
                                                                       1440
 cggtgatcac cccctatggg gagtgcatcc tgggggctgg ggggtacatc ttcaacacag
                                                                       1500
 aageteacee categaceet geegeeetge actgetgeea gaggetgaag gaagageagt
                                                                       1560
 gggaggtgga ggacttgatg agggaattct actctctcaa acggagcagg tcgaaatttc
                                                                       1620
 agaaaaacac tgttagttcg gggccatggg aacctccagc aaggccagga acactcttct
                                                                       1680
 caccagaaaa ccatgaccag gcaagggaga ggaagcctgc caaacagaag gtcccacttc
                                                                       1740
 tcagctgccc cagtcagccc ttcacctcca agttggcatt actgggacag gttttcctag
                                                                       1800
 actecteata accaetggat aattititta tittattit titgaggeta aactataata
                                                                       1860
 1920
 agggcggccg c
                                                                       1931
<210> 79
<211> 1145
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (9)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (410)
<223> n equals a,t,g, or c
<400> 79
caggcagang ggctgagtca caggcacagg tgaggaactc aactcaaact cctctctg
                                                                        60
ggaaaacgcg gtgcttgctc ctcccggagt ggccttggca gggtgttgga gccctcggtc
                                                                       120
tgccccgtcc ggtctctggg gccaaggctg ggtttccctc atgtatggca agagctctac
                                                                       180
tcgtgcggtg cttcttctcc ttggcataca gctcacagct ctttggccta tagcagctgt
                                                                       240
ggaaatttat acctcccggg tgctggaggc tgttaatggg acagatgctc ggttaaaatg
                                                                       300
cactttctcc agetttgccc ctgtgggtga tgctctaaca gtgacctgga attttcgtcc
                                                                       360
tctagacggg ggacctgagc agtttgtatt ctactaccac atagatcccn ttccaaccca
                                                                       420
tgagtgggcg gtttaaggac cgggtgtctt gggatgggaa tcctgagcgg tacgatgcct
                                                                       480
ccatecttet etggaaactg cagttegaeg acaatgggae atacacetge caggtgaaga
                                                                       540
acccacctga tgttgatggg gtgatagggg asatccggct cagcgtcgtg cacactgtac
                                                                       600
gcttctctga gatccacttc ctggctctgg ccattggctc tgcctgtgca ctgatgatca
                                                                       660
taatagtaat tgtagtggtc ctcttccagc attaccggaa aaagcgatgg gccgaaagag
```

ctcataaagt ggtggagata aaatcaaaag aagaggaaag gctcaaccaa gagaaaaagg

720

<222> (54)

<223> Xaa equals stop translation

```
tctctgttta tttagaagac acagactaac aattttagat ggtaaggttc acaaataggt
                                                                       840
  tgatttcttt cttcagcttt ctgacatgtc cagcccatct ctaatgagga ctcccagatc
                                                                       900
  atcactttat ggctgttarg tgtttcccat atgaaattag aggagctggg tcagggagac
                                                                       960
  aaaagtetté tattagtett atggataget eeteettgag tgtattttgt geaaaagatt
                                                                      1020
  aagaagctgg actctactgc cattaaagct gagagaatcc taaggttatt tgtggcttcg
                                                                      1080
  gggttatatt tattactact actactaata aatattcaac aagtaaataa atctttttta
                                                                      1140
  aatca
                                                                      1145
 <210> 80
 <211> 1955
 <212> DNA
 <213> Homo sapiens
 <400> 80
  ggcacgagtg ccatccctgt atttgctgcc atgctcttcc ttttctccat ggctacactg
                                                                        60
  ttgaggacca gcttcagtga ccctggagtg attcctcggg cgctaccaga tgaagcagct
                                                                       120
  180
  cctcgtatca agaatttcca gataaacaac cagattgtga aactgaaata ctgttacaca
                                                                       240
  tgcaagatct tccggcctcc ccgggcctcc cattgcagca tctgtgacaa ctgtgtggag
                                                                       300
  cgcttcgacc atcactgccc ctgggtgggg aattgtgttg gaaagaggaa ctaccgctac
                                                                      360
  ttetacetet teateettte teteteeete eteacaatet atgtettege etteaacate
                                                                       420
  gtctatgtgg ccctcaaatc tttgaaaatt ggcttcttgg agacattgaa aggaaactcc
                                                                      480
  tggaactgtt ctagaagtcc tcatttgctt ctttacactc tggtccgtcg tgggactgac
                                                                      540
 tggatttcat actttcctcg tggctctcaa ccagacaacc aatgaaagac atcaaaggat
                                                                      600
 catggacagg gaagaatcgc gtccagaatc cctacagcca tggcaatatt gtgaagaact
                                                                      660
 gctgtgaagt gctgtgtggc cccttgcccc ccagtgtgct ggatcgaagg ggtattttgc
                                                                      720
 cactggagga aagtggaagt cgacctccca gtactcaaga gaccagtagc agcctcttgc
                                                                      780
 cacagageee ageeeccaca gaacacetga acteaaatga gatgeeggag gacageagca
                                                                      840
 ctcccgaaga gatgccacct ccagagcccc cagagccacc acaggaggca gctgaagctg
                                                                      900
 agaagtagcc tatctatgga agagactttt gtttgtgttt aattagggct atgagagatt
                                                                      960
 tcaggtgaga agttaaacct gagacagaga gcaagtaagc tgtccctttt aactgttttt
                                                                     1020
 ctttggtctt tagtcaccca gttgcacact ggcattttct tgctgcaagc ttttttaaat
                                                                     1080
 ttctgaactc aaggcagtgg cagaagatgt cagtcacctc tgataactgg aaaaatgggt
                                                                     1140
 ctcttgggcc ctggcactgg ttctccatgg cctcagccac agggtcccct tggacccct
                                                                     1200
 ctcttccctc cagatcccag ccctcctgct tggggtcact ggtctcattc tggggctaaa
                                                                     1260
 agttttcgag actggctcaa atcctcccaa gctgctgcac gtgctgagtc cagaggcagt
                                                                     1320
 cacagagacc tctggccagg ggatcctaac tgggttcttg gggtcttcag gactgaagag
                                                                     1380
 gagggagagt ggggtcagaa gattctcctg gccaccaagt gccagcattg cccacaaatc
                                                                     1440
 cttttaggaa tgggacaggt accttccact agttgtattt attagtgtag cttctccttt
                                                                     1500
 gtctcccatc cactctgaca ccttaagccc cactcttttc ccattagata tatgtaagta
                                                                     1560
 gttgtagtag agataataat tgacatttct cgtagactac ccagaaactt ttttaatacc
                                                                     1620
 tgtgccattc tcaataagaa tttatgagat gccagcggca tagcccttca cactctctgt
                                                                     1680
 ctcatctctc ctcctttctc attagcccct tttaatttgt ttttcctttt gactcctgct
                                                                     1740
 cccattagga gcaggaatgg cagtaataaa agtctgcact ttggtcattt cttttcctca
                                                                     1800
 gaggaageet gagtgeteae ttaaaeacta teeecteaga eteeetgtgt gaggeetgea
                                                                     1860
 1920
 tcccccgatg taccctcaaa aaaaaaaaaa aaaaa
                                                                     1955
<210> 81
<211> 54
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
```

```
<400> 81
Met Ala Gly Gln His Leu Ala Cys Leu Ala Ser Cys Val Met Ser Leu
Ile Trp Phe Phe Phe Cys Ser Cys Phe Ile Cys Ser Ala Pro Ala
Pro Pro Gln Gln Leu Val Ala Tyr Gly Phe Phe Lys Arg Lys Val Asp
                             40
Phe Met Leu Tyr Ile Xaa
     50
<210> 82
<211> 578
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (326)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (342)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (444)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 82
Met Pro Phe Arg Leu Leu Ile Pro Leu Gly Leu Leu Cys Ala Leu Leu
Pro Gln His His Gly Ala Pro Gly Pro Asp Gly Ser Ala Pro Asp Pro
Ala His Tyr Arg Glu Arg Val Lys Ala Met Phe Tyr His Ala Tyr Asp
        35
Ser Tyr Leu Glu Asn Ala Phe Pro Phe Asp Glu Leu Arg Pro Leu Thr
                         55
Cys Asp Gly His Asp Thr Trp Gly Ser Phe Ser Leu Thr Leu Ile Asp
                    70
Ala Leu Asp Thr Leu Leu Ile Leu Gly Asn Val Ser Glu Phe Gln Arg
Val Val Glu Val Leu Gln Asp Ser Val Asp Phe Asp Ile Asp Val Asn
            100
                                105
                                                    110
```

Ala Ser Val Phe Glu Thr Asn Ile Arg Val Val Gly Gly Leu Leu Ser

120

- Ala His Leu Leu Ser Lys Lys Ala Gly Val Glu Val Glu Ala Gly Trp
 130 135 140
- Leu Leu Pro Ala Phe Gln Thr Pro Thr Gly Met Pro Tyr Gly Thr Val
 165 170 175
- Asn Leu Leu His Gly Val Asn Pro Gly Glu Thr Pro Val Thr Cys Thr 180 185 190
- Ala Gly Ile Gly Thr Phe Ile Val Glu Phe Ala Thr Leu Ser Ser Leu 195 200 205
- Thr Gly Asp Pro Val Phe Glu Asp Val Ala Arg Val Ala Leu Met Arg 210 215 220
- Leu Trp Glu Ser Arg Ser Asp Ile Gly Leu Val Gly Asn His Ile Asp 225 230 235 240
- Val Leu Thr Gly Lys Trp Val Ala Gln Asp Ala Gly Ile Gly Ala Gly 245 250 255
- Val Asp Ser Tyr Phe Glu Tyr Leu Val Lys Gly Ala Ile Leu Leu Gln 260 265 270
- Asp Lys Leu Met Ala Met Phe Leu Glu Tyr Asn Lys Ala Ile Arg 275 280 285
- Asn Tyr Thr Arg Phe Asp Asp Trp Tyr Leu Trp Val Gln Met Tyr Lys 290 295 300
- Gly Thr Val Ser Met Pro Val Phe Gln Ser Leu Glu Ala Tyr Trp Pro 305 310 315 320
- Gly Leu Gln Ser Leu Xaa Gly Asp Ile Asp Asn Ala Met Arg Thr Phe 325 330 335
- Leu Asn Tyr Tyr Thr Xaa Trp Lys Gln Phe Gly Gly Leu Pro Glu Phe 340 345 350
- Tyr Asn Ile Pro Gln Gly Tyr Thr Val Glu Lys Arg Glu Gly Tyr Pro 355 360 365
- Leu Arg Pro Glu Leu Ile Glu Ser Ala Met Tyr Leu Tyr Arg Ala Thr 370 375 380
- Gly Asp Pro Thr Leu Leu Glu Leu Gly Arg Asp Ala Val Glu Ser Ile 385 390 395 400
- Glu Lys Ile Ser Lys Val Glu Cys Gly Phe Ala Thr Ile Lys Asp Leu 405 410 415
- Arg Asp His Lys Leu Asp Asn Arg Met Glu Ser Phe Phe Leu Ala Glu
 420 425 430
- Thr Val Lys Tyr Leu Tyr Leu Leu Phe Asp Pro Xaa Asn Phe Ile His

Ası	n As:	n Gl; 0	y Sei	r Thr	Phe	Asp 455		a Vai	l Il€	∋ Thr	Pro 460		Gly	/ Glu	ı Cys
Ile 465	e Lei	u Gl	y Ala	a Gly	Gly 470		·Ile	Phe	∋ Asr	1 Thr 475		. Ala	His	s Pro	Ile 480
Asp	Pro	o Ala	a Ala	Leu 485	His	Суз	Cys	Glr	1 Arg		Lys	Glu	Glu	Gln 495	
Glu	ı Val	l Glı	1 Asp 500	Leu	Met	Arg	Glu	Phe 505		Ser	Leu	Lys	Arg 510		Arg
Ser	: Lys	515	e Gln	Lys	Asn	Thr	Val 520		Ser	Gly	Pro	Trp 525	Glu	Pro	Pro
Ala	Arg 530	Pro	Gly	Thr	Leu	Phe 535	Ser	Pro	Glu	Asn	His 540	Asp	Gln	Ala	Arg
Glu 545	Arg	Lys	Pro	Ala	Lys 550	Gln	Lys	Val	Pro	Leu 555	Leu	Ser	Cys	Pro	Ser 560
Gln	Pro	Phe	Thr	Ser 565	Lys	Leu	Ala	Leu	Leu 570	Gly	Gln	Val	Phe	Leu 575	Asp
Ser	Ser														
<210> 83 <211> 100 <212> PRT <213> Homo sapiens															
<220> <221> SITE <222> (100) <223> Xaa equals stop translation															
)> 83 Ala		Tyr	Tyr (Gln 1	Asn	Phe	Tyr	Ile 10	Leu	Val	Val	Phe	Val 15	Leu
Phe	Leu	His	Thr 20	Ser i	Arg '	Thr i	Phe	Val 25	Leu	Pro	Val :	His .	Ala 30	Val	Lys
Asp	Ser	Ala 35	Gln	Val 1	ieu (Glu (Glu 40	Ile	Val	Lys :	His (Glu :	Leu	Gly	Ser
Gln	Val 50	Ser	Leu	Leu S	Ser I	?ro \ 55	Val	Glu	Glu	Pro (Gly 1 60	Pro l	Ser	Pro ·	Cys
Thr 65	Pro	Asp	Ile	Gln G	31 <i>y ₽</i> 70	Arg (3ly '	Val	Arg :	Lys : 75	Thr I	Leu 1	Pro :	Pro I	Asn 80

Gly Leu Asp Gly Met Phe Pro Ser Ser Cys Ser Pro Asn Val Ser Thr

```
49
  Gly Ala His Xaa
             100
 <210> 84
 <211> 48
 <212> PRT
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (48)
 <223> Xaa equals stop translation
 <400> 84
 Met Gly Glu Phe Thr Ser Val Val Cys Tyr Cys Phe Ile Leu Ser Leu
                              10
 Ile Ile Gly Ser Val Val Arg Trp Gln Gly Cys Gly Ala Glu Trp Gly
                                  25
 Phe Ala Leu Gly Glu His Met Trp Gln Arg Ala Gln Glu Asp Leu Xaa
<210> 85
<211> 47
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (47)
<223> Xaa equals stop translation
<400> 85
Met Asn Ala Thr Thr Ser Phe Gln Phe Thr Thr Pro Thr Arg Leu Trp
Leu Met Leu Leu Leu Asn Tyr Gln Ile Phe Cys Cys Tyr Thr Val Thr
Phe Lys Glu Phe Gly Lys Leu Val Ser Thr Ala Asn Leu Gly Xaa
                             40
<210> 86
<211> 276
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (276)
```

<223> Xaa equals stop translation

<400> 86

Met Gly Asn Phe Arg Gly His Ala Leu Pro Gly Thr Phe Phe Phe Ile

1 10 15

Ile Gly Leu Trp Trp Cys Thr Lys Ser Ile Leu Lys Tyr Ile Cys Lys
20 25 30

Lys Gln Lys Arg Thr Cys Tyr Leu Gly Ser Lys Thr Leu Phe Tyr Arg 35 40 45

Leu Glu Ile Leu Glu Gly Ile Thr Ile Val Gly Met Ala Leu Thr Gly 50 55 60

Met Ala Gly Glu Gln Phe Ile Pro Gly Gly Pro His Leu Met Leu Tyr 65 70 75 80

Asp Tyr Lys Gln Gly His Trp Asn Gln Leu Leu Gly Trp His His Phe
85 90 95

Thr Met Tyr Phe Phe Phe Gly Leu Leu Gly Val Ala Asp Ile Leu Cys 100 105 110

Phe Thr Ile Ser Ser Leu Pro Val Ser Leu Thr Lys Leu Met Leu Ser 115 120 125

Asn Ala Leu Phe Val Glu Ala Phe Ile Phe Tyr Asn His Thr His Gly 130 135 140

Arg Glu Met Leu Asp Ile Phe Val His Gln Leu Leu Val Leu Val Val 145 150 155 160

Phe Leu Thr Gly Leu Val Ala Phe Leu Glu Phe Leu Val Arg Asn Asn 165 170 175

Val Leu Leu Glu Leu Leu Arg Ser Ser Leu Ile Leu Leu Gln Gly Ser 180 185 190

Trp Phe Phe Gln Ile Gly Phe Val Leu Tyr Pro Pro Ser Gly Gly Pro 195 200 205

Ala Trp Asp Leu Met Asp His Glu Asn Ile Leu Phe Leu Thr Ile Cys 210 220

Phe Cys Trp His Tyr Ala Val Thr Ile Val Ile Val Gly Met Asn Tyr 225 230 235 235

Ala Phe Ile Thr Trp Leu Val Lys Ser Arg Leu Lys Arg Leu Cys Ser 245 250 255

Ser Glu Val Gly Leu Leu Lys Asn Ala Glu Arg Glu Gln Glu Ser Glu 265 270

Glu Glu Met Xaa 275

<210> 87

<211> 86

<212> PRT

```
51
 <213> Homo sapiens
 <220>
<221> SITE
<222> (86)
<223> Xaa equals stop translation
<400> 87
Met Ala Ser Lys Thr Leu Tyr Asp Leu Ala Leu Ala Tyr Leu Ser Ala
Leu Ala Leu Pro Thr Leu Ala Gln Ser Leu Leu Phe Ser His Ser Gly
                                 25
Ser Leu Thr Ile Pro Arg Cys Thr Arg Leu Ser His Thr Ser Ala Pro
                              40
Leu His Val Leu Phe Ala Val Arg Gly Met Pro Phe Thr Val Thr Thr
                         55
Leu Leu Ile His Ser Thr Asn Ala Ser Ser Phe Phe Tyr Thr Gln Leu
65
                                         75
Ser Leu Lys Phe Phe Xaa
<210> 88
<211> 95
<212> PRT
<213> Homo sapiens
<220>
<222> (95)
```

<221> SITE <223> Xaa equals stop translation

Met Ala Ile Leu His Leu Phe Lys Phe Phe Ser Phe Phe Asn Phe Val

Ile Ser Ala Ser Pro Ile Tyr Leu Leu Tyr His Tyr Leu Arg Ser Asp 25

Lys Arg Val Leu Val Gly Gln Val Leu Gln Ser Leu Ser Gly Asn Asn 35 40

Ile Cys His Ile Thr Leu Leu Ile Cys Leu Leu Leu Ile Trp Glu Ala

Lys His Trp Cys Leu Arg Gly Leu Pro Ile Ile Asn Cys His Tyr His 70 65

Tyr Ser Pro Leu Leu Phe Val Trp Lys Leu Asn Lys Gly Gln Xaa 85 90

<210> 89 <211> 313

```
<212> PRT
```

<213> Homo sapiens

<220>

<221> SITE

<222> (313)

<223> Xaa equals stop translation

<400> 89

Met Pro Pro Pro Arg Val Phe Lys Ser Phe Leu Ser Leu Leu Phe Gln 1 5 10

Gly Leu Ser Val Leu Leu Ser Leu Ala Gly Asp Val Leu Val Ser Met 20 25 30

Tyr Arg Glu Val Cys Ser Ile Arg Phe Leu Phe Thr Ala Val Ser Leu 35 40 45

Leu Ser Leu Phe Leu Ser Ala Phe Trp Leu Gly Leu Leu Tyr Leu Val 50 55 60

Ser Pro Leu Glu Asn Glu Pro Lys Glu Met Leu Thr Leu Ser Glu Tyr 65 70 75 80

His Glu Arg Val Arg Ser Gln Gly Gln Gln Leu Gln Gln Leu Gln Ala 85 90 95

Glu Leu Asp Lys Leu His Lys Glu Val Ser Thr Val Arg Ala Ala Asn 100 105 110

Ser Glu Arg Val Ala Lys Leu Val Phe Gln Arg Leu Asn Glu Asp Phe 115 120 125

Val Arg Lys Pro Asp Tyr Ala Leu Ser Ser Val Gly Ala Ser Ile Asp 130 135 140

Leu Gln Lys Thr Ser His Asp Tyr Ala Asp Arg Asn Thr Ala Tyr Phe 145 150 155 160

Trp Asn Arg Phe Ser Phe Trp Asn Tyr Ala Arg Pro Pro Thr Val Ile 165 170 175

Leu Glu Pro His Val Phe Pro Gly Asn Cys Trp Ala Phe Glu Gly Asp 180 185 190

Gln Gly Gln Val Val Ile Gln Leu Pro Gly Arg Val Gln Leu Ser Asp 195 200 205

Ile Thr Leu Gln His Pro Pro Pro Ser Val Glu His Thr Gly Gly Ala 210 215 220

Asn Ser Ala Pro Arg Asp Phe Ala Val Phe Gly Leu Gln Val Tyr Asp 225 230 235 240

Glu Thr Glu Val Ser Leu Gly Lys Phe Thr Phe Asp Val Glu Lys Ser 245 250 255

Glu Ile Gln Thr Phe His Leu Gln Asn Asp Pro Pro Ala Ala Phe Pro 260 265 270

```
Lys Val Lys Ile Gln Ile Leu Ser Asn Trp Gly His Pro Arg Phe Thr 275 280 285
```

Cys Leu Tyr Arg Val Arg Ala His Gly Val Arg Thr Ser Glu Gly Ala 290 295 300

Glu Gly Ser Ala Gln Gly Pro His Xaa 305 310

<210> 90

<211> 80

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (80)

<223> Xaa equals stop translation

<400> 90

Met Met Ser Ser Cys Leu Val Val Val Ile Thr Leu Arg Ala Tyr Phe 1 5 10 15

Ser Trp Leu Gln Ala Ile Arg Ser Gln Val Val Trp Ser Arg Met Lys
20 25 30

Arg Leu Gln Ser Ala Ser Arg Gln Ser Gly Leu Ser Ile Pro Arg Ser 35 40 45

Glu Met Ser Ala Leu His Arg Leu Gln Asp Trp Ser Asp Lys Ser His 50 55 60

Ile Leu Phe Phe Ile Phe Leu Pro Arg Val Cys Arg Phe Pro Leu Xaa 65 70 75 80

<210> 91

<211> 47

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (47)

<223> Xaa equals stop translation

<400> 91

Met Leu Phe Leu Thr Cys Arg Ser Pro His Ser Cys Cys Val Ile Thr 1 5 10 15

Trp Phe Phe Leu Cys Ala Cys Ala Leu Val Ser Ser Ser Tyr Gln Asp 20 25 30

Asn Asn Pro Ile Gly Phe Arg Pro Glu Pro Tyr Asn Pro Ile Xaa

```
<210> 92
<211> 129
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (106)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (129)
<223> Xaa equals stop translation
<400> 92
Met Gly Ala Ala Gly Arg Gln Asp Phe Leu Phe Lys Ala Met Leu Thr
Ile Ser Trp Leu Thr Leu Thr Cys Phe Pro Gly Ala Thr Ser Thr Val
            20
                                 25
Ala Ala Gly Cys Pro Asp Gln Ser Pro Glu Leu Gln Pro Trp Asn Pro
         35
Gly His Asp Gln Asp His His Val His Ile Gly Gln Gly Lys Thr Leu
                         55
Leu Leu Thr Ser Ser Ala Thr Val Tyr Ser Ile His Ile Ser Glu Gly
                                         75
                     70
Gly Lys Leu Val Ile Lys Asp His Asp Glu Pro Ile Val Leu Arg Thr
Arg His Ile Leu Ile Asp Asn Gly Gly Xaa Leu His Ala Gly Glu Cys
                                105
Pro Leu Pro Phe Pro Gly Gln Phe His His His Phe Val Trp Lys Gly
```

Xaa

115

```
<210> 93
<211> 71
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (71)
<223> Xaa equals stop translation

<400> 93
```

Met Ala Phe Cys Phe Phe Ile Phe Tyr Leu Tyr Ser Phe Pro Ser Ile

```
Ser His Gly Asp Leu His Lys Phe Gly Val Phe Ser Trp Cys Thr His 20 25 30
```

Val Arg Arg Phe Lys Val Leu Tyr Ala Ser Val Leu Leu Lys Ser Thr 35 40 45

Glu Ile Leu Leu Ala Ile Gln Glu Pro Phe Ser Gly Ser Trp Ser Tyr
50 55 60

Phe Leu Leu Asn Leu Ser Xaa 65 70

<210> 94

<211> 48

<212> PRT

<213> Homo sapiens

<220>

uj

W.

. W

n.

ļ.

 <221> SITE

<222> (48)

<223> Xaa equals stop translation

<400> 94

Met Gln Trp Ala Val Lys Cys Trp Leu Phe Gln Leu Cys Met Asp Ser $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Ser Leu Ala Ser Leu Gly Trp Ala Glu Lys Arg Glu Leu Leu Phe Pro 20 25 . 30

Lys Arg Pro Ser Gln Leu Cys Ser Thr Thr Leu Cys Ser Pro Gly Xaa 35 40 45

<210> 95

<211> 57

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (57)

<223> Xaa equals stop translation

<400> 95

Met Asn Trp Cys Leu Cys Ile Ile Ser Leu Thr Thr Leu Leu Ser Ile

1 5 10 15

Pro Val His Ile Val Gly Glu Glu Lys Asp Met Leu Lys Cys Thr Phe 20 25 30

Cys Leu Leu Asn Thr Leu Lys Lys Cys Val Val Trp Lys Arg Leu Tyr 35 40 45

His Asn Gly Gly Ala Asn Asn Leu Xaa 50 55

<210> 96 <211> 73

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (73)

<223> Xaa equals stop translation

<400> 96

Met Ala Gly Arg Lys Pro Ala Ala Pro Val Phe Thr Val Val Arg Lys 1 5 10 15

Val Leu Cys Phe Gly Phe Gly Val Phe Val Leu Phe Val Phe Cys Leu 20 25 30

Ala Cys Leu Phe Phe Lys Gly Lys Lys Val Cys Asn Tyr Phe Ile Gln 35 40 45

Ile Ser Arg Tyr Ile Ser Val Asn Asn Lys Arg Phe Tyr Asn Ser Lys 50 55 60

Lys Met Met Tyr Ile Leu Val Cys Xaa 65 70

<210> 97

<211> 60

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (60)

<223> Xaa equals stop translation

<400> 97

Met Leu Pro Tyr Phe Lys Trp Leu Leu His Leu Val Arg Leu Ser Phe 1 5 10 15

Val Ser Leu Ala Ser Pro Trp Asp Ser Thr Ala Gly Leu Gly Leu Lys
20 25 30

Leu Pro Asn Ile Tyr Gly Met Thr Ser Met Gly Trp Asp Pro Ser Pro 35 40 45

Gly Ala Arg Gly Gly Val Gly Thr Glu Lys Arg Xaa 50 55 60

<210> 98

<211> 49

<212> PRT

<213> Homo sapiens

```
<220>
 <221> SITE
 <222> (49)
 <223> Xaa equals stop translation
 <400> 98
 Met Trp Leu Gln Thr Leu Pro Leu Phe Ala Thr Gly Cys Lys Ala Val
 Pro Trp Asn Cys Phe Gly Trp Cys Leu Thr Gln Glu Val Phe Ala Val
                                  25
 Leu Gly Asp Leu Val Asn Ser Ala Asp Gln Val Asn Arg Leu Phe Phe
                              40
 Xaa
<210> 99
 <211> 57
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (57)
<223> Xaa equals stop translation
<400> 99
Met Arg Ser Ser Phe Leu Tyr Ala Ile Pro Ala Val Phe Phe Leu
 1
                                     10
Thr Gly Pro Cys Leu Arg Ile Asn Lys Ser Val Met Ser Glu Thr Lys
Val Tyr Ser Ser Val Cys Arg Cys Val Ala Pro Pro Phe Ser Pro Ala
         35
                              40
Ala Pro His Ile Gln Ser Arg Ser Xaa
     50
<210> 100
<211> 70
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (70)
<223> Xaa equals stop translation
<400> 100
Met Ala Cys Arg Ser Trp Cys Phe Thr Leu Leu Ala Asn Val Ser Phe
                                     10
Thr Leu Leu Pro Val His Trp Gly Ser Ala Glu Ala Val Phe Ser
```

Val Ser Ile Thr Leu Gly Cys Arg Pro Pro Ser Ser Leu Ser Val Pro 35 40

25

Leu Ser Arg Gly Arg Arg Asp Leu Gly Ser His Val Leu Ala Leu Val 55

Ala Ser Leu Trp Lys Xaa

<210> 101

<211> 83

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (83)

<223> Xaa equals stop translation

<400> 101

<u>ļ</u>.

NJ

Met Ala Glu Thr Arg Gly Leu Cys Ser Val Cys Phe Cys Ala Leu Cys 10

Leu Tyr Gly Ser Tyr Ala Ala Cys Pro Pro Cys Phe Ser Arg Glu Pro 20 25

Arg Gln Arg Arg His His Gly Asn Asp Trp Val Arg Trp Lys Phe Arg 40

Gly Pro Ala Leu Val Gly Arg Glu Ala Trp Leu Thr Ser Gln Ala Gln

His Val Cys Gly Ser Leu Leu Cys Thr Val Ser Ser Ser Pro Lys Trp 65 75

Glu Ser Xaa

<210> 102

<211> 43

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (43)

<223> Xaa equals stop translation

<400> 102

Met Ser Ser Pro Cys Leu Phe Leu Ser Leu Thr Glu Asn Ile Phe Met

Ser Phe Leu Ile Ala Gly Phe Gly Leu Phe Ile Ile Met Phe Ile Asn 25

Thr Phe Asp Ser Thr Val Arg Asn Val Gly Xaa 35

<210> 103

<211> 325

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (286)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (318)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 103

Met Ile Ala Glu Leu Val Ser Ser Ala Leu Gly Leu Ala Leu Tyr Leu 1 5 10 15

Asn Thr Leu Ser Ala Asp Phe Cys Tyr Asp Asp Ser Arg Ala Ile Lys 20 25 30

Thr Asn Gln Asp Leu Leu Pro Glu Thr Pro Trp Thr His Ile Phe Tyr 35 40 45

Asn Asp Phe Trp Gly Thr Leu Leu Thr His Ser Gly Ser His Lys Ser 50 55 60

Tyr Arg Pro Leu Cys Thr Leu Ser Phe Arg Leu Asn His Ala Ile Gly 65 70 75 80

Gly Leu Asn Pro Trp Ser Tyr His Leu Val Asn Val Leu Leu His Ala 85 90 95

Ala Val Thr Gly Leu Phe Thr Ser Phe Ser Lys Ile Leu Leu Gly Asp 100 105 110

Gly Tyr Trp Thr Phe Met Ala Gly Leu Met Phe Ala Ser His Pro Ile 115 120 125

His Thr Glu Ala Val Ala Gly Ile Val Gly Arg Ala Asp Val Gly Ala 130 135 140

Ser Leu Phe Phe Leu Leu Ser Leu Leu Cys Tyr Ile Lys His Cys Ser 145 150 155 160

Thr Arg Gly Tyr Ser Ala Arg Thr Trp Gly Trp Phe Leu Gly Ser Gly
165 170 175

Leu Cys Ala Gly Cys Ser Met Leu Trp Lys Glu Gln Gly Val Thr Val 180 185 190

Leu Ala Val Ser Ala Val Tyr Asp Val Phe Val Phe His Arg Leu Lys
195 200 205

```
60
  Ile Lys Gln Ile Leu Pro Thr Ile Tyr Lys Arg Lys Asn Leu Ser Leu
     210
                          215
 Phe Leu Ser Ile Ser Leu Leu Ile Phe Trp Gly Ser Ser Leu Leu Gly
 225
                                          235
 Ala Arg Leu Tyr Trp Met Gly Asn Lys Pro Pro Ser Phe Ser Asn Ser
                  245
 Asp Asn Pro Ala Ala Asp Ser Asp Ser Leu Leu Thr Arg Thr Leu Thr
                                  265
 Phe Phe Tyr Leu Pro Thr Lys Asn Leu Trp Leu Leu Leu Xaa Pro Asp
                             280
 Thr Leu Ser Phe Glu Trp Ser Met Asp Ala Val Pro Leu Leu Lys Thr
                         295
 Val Cys Asp Trp Arg Asn Leu His Thr Val Gly Leu Leu Xaa Trp Asp
                   310
                                         315
 Ser Phe Ser Leu Ala
                 325
<210> 104
<211> 46
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (46)
<223> Xaa equals stop translation
<400> 104
Met Leu Leu Gln Phe Ser Ile Phe Phe Ala Pro Val Val Cys Leu Pro
Lys Tyr Ser Pro Phe Met Lys Glu Glu Cys Lys Ala Asp Pro Thr Arg
                                 25
Asp Tyr Lys Phe Leu Tyr Ile Tyr Ile Glu Arg Gly Thr Xaa
         35
                             40
<210> 105
<211> 49
<212> .PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (49)
<223> Xaa equals stop translation
<400> 105
```

Met Cys Gly Ile Phe Ser Ile Leu Cys Ile Lys Ile Phe Phe Leu Ile

10

```
Leu Gln Leu Phe Phe Tyr Phe Pro Leu Tyr Asn Cys Ile Phe Asn Thr
                                 25
Ser Ile Ser Ile Leu Asn Arg Val Leu Val Lys Lys Arg Ser Thr Phe
                             40
Xaa
<210> 106
```

```
<211> 66
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (66)
<223> Xaa equals stop translation
<400> 106
```

Met Tyr Leu Leu His Ser Ile Leu Phe Met Leu Cys Leu Val Gly Met 5 10

Val Glu Phe Asn Lys Ser Thr Arg Glu Cys Ile Leu Phe Lys Thr Leu 20 25

Trp Leu Ile Pro Leu Phe Thr Tyr Lys Leu Ala Tyr Leu Cys Glu Lys

Leu Lys Phe Val Lys Phe Cys Ala Ser Leu Leu Ile Ala Val Phe Asp 50 55

His Xaa 65

<210> 107 <211> 46 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (46)

<223> Xaa equals stop translation

<400> 107 Met Thr Ala Phe Ile Thr Tyr Pro Leu Leu Phe Ile Cys Leu Pro Ser 10

Val Ser His Phe Leu Pro Val Pro Thr Cys Leu Phe Pro Cys Glu Gly 20 25

Leu Asn Cys Glu Pro Leu Arg Phe Asn Val Arg Ser Pro Xaa 40

<222> (228)

```
62
   <210> 108
   <211> 74
   <212> PRT
   <213> Homo sapiens
   <220>
   <221> SITE
   <222> (74)
   <223> Xaa equals stop translation
   <400> 108
   Met Pro His Leu Asn His Ser Leu Phe Leu Phe Leu Ser Val Gly Cys
   Ala Leu Ser Ala Gln Met Ala Phe His Gln Leu Asp Leu Glu Gln Pro
                                   25
   Glu Asp Ala Thr Leu Pro Ser Glu Pro Phe Phe His His Thr Val Val
           35
  Pro Gln Arg Ser Phe Ser Arg Ile Leu Val Asn Met Gly Gln Leu Ser
        50
                          55
  Glu Thr Leu Ala Glu Gln Gly Tyr Ile Xaa
  . 65
                        70
  <210> 109
  <211> 50
  <212> PRT
  <213> Homo sapiens
  <220>
  <221> SITE
  <222> (50)
<223> Xaa equals stop translation
  <400> 109
  Met Phe Pro Trp Cys Val Cys Val Ile Ala Cys Ile Ser Ala Val Thr
  Pro Leu Ile Gln Gly Phe Thr Phe Cys Ser Phe Ser Tyr Pro Gln Tyr
               20
                                   25
  Ser Thr Val Arg Tyr Phe Glu Arg Glu Thr Thr Leu Thr Leu Leu Leu
                                                  45
  Leu Xaa
    50
 <210> 110
 <211> 228
 <212> PRT
 <213> Homo sapiens
 <220>
 <221> SITE
```

<223> Xaa equals stop translation

.<400> 110

Met Ala Ala Pro Ile Ile Gly Val Thr Pro Met Phe Ala Val Cys Phe 1 5 10 15

Phe Gly Phe Gly Leu Gly Lys Lys Leu Gln Gln Lys His Pro Glu Asp 20 25 30

Val Leu Ser Tyr Pro Gln Leu Phe Ala Ala Gly Met Leu Ser Gly Val 35 40 45

Phe Thr Thr Gly Ile Met Thr Pro Gly Glu Arg Ile Lys Cys Leu Leu 50 55 60

Gln Ile Gln Ala Ser Ser Gly Glu Ser Lys Tyr Thr Gly Thr Leu Asp
65 70 75 80

Cys Ala Lys Lys Leu Tyr Gln Glu Phe Gly Ile Arg Gly Ile Tyr Lys 85 90 95

Gly Thr Val Leu Thr Leu Met Arg Asp Val Pro Ala Ser Gly Met Tyr
100 105 110

Phe Met Thr Tyr Glu Trp Leu Lys Asn Ile Phe Thr Pro Glu Gly Lys 115 120 125

Arg Val Ser Glu Leu Ser Ala Pro Arg Ile Leu Val Ala Gly Gly Ile 130 135 140

Ala Gly Ile Phe Asn Trp Ala Val Ala Ile Pro Pro Asp Val Leu Lys
145 150 155 160

Ser Arg Phe Gln Thr Ala Pro Pro Gly Lys Tyr Pro Asn Gly Phe Arg 165 170 175

Asp Val Leu Arg Glu Leu Ile Arg Asp Glu Gly Val Thr Ser Leu Tyr 180 185 190

Lys Gly Phe Asn Ala Val Met Ile Arg Ala Phe Pro Ala Asn Ala Ala 195 200 205

Cys Phe Leu Gly Phe Glu Val Ala Met Lys Phe Leu Asn Trp Ala Thr 210 215 220

Pro Asn Leu Xaa 225

<210> 111

<211> 74

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (74)

<223> Xaa equals stop translation

```
64
Met Thr Arg Ala Thr Thr Glu Phe Pro Ser Pro Lys Phe Ser Thr Leu
                                     10
Leu Val Leu Val Leu Ser Leu Leu Arg Ala His Ile Leu Ile Pro Lys
                                 25
Glu Pro Leu Gln Ser Ser Cys Leu Leu Lys Thr Leu Tyr Trp Ala Cys
Ser Cys Asn Ser Asp Phe Ile Arg Cys Ile Leu Arg Glu Val Ser Gly
                         55
Lys Ile Trp Arg Phe Ser Lys Thr Leu Xaa
                     70
<210> 112
<211> 43
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (43)
<223> Xaa equals stop translation
<400> 112
Met Ile Tyr Phe Leu Cys Leu Ala Tyr Cys Lys Phe Phe Ile Leu Ile
                                    10
His Ser Ser Asn Ile Ile Ala Thr Lys Lys Cys Leu Tyr Leu Asp Gln
Arg Gln Asp Phe Leu Cys Val Cys Phe Ala Xaa
<210> 113
<211> 180
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (180)
<223> Xaa equals stop translation
<400> 113
Met Ala Cys Lys Gly Leu Leu Gln Gln Val Gln Gly Pro Arg Leu Pro
                                     10
Trp Thr Arg Leu Leu Leu Leu Leu Val Phe Ala Val Gly Phe Leu
```

Arg Leu Leu Arg Ser Ser Gly Phe Leu Pro Ala Ser Gln Gln Ala Cys

Cys His Asp Leu Arg Ser His Ser Ser Phe Gln Ala Ser Leu Thr Gly 35 40 45

```
Ala Lys Leu Tyr Ser Tyr Ser Leu Gln Gly Tyr Ser Trp Leu Gly Glu 65 70 75 80
```

Thr Leu Pro Leu Trp Gly Ser His Leu Leu Thr Val Val Arg Pro Ser 85 90 95

Leu Gln Leu Ala Trp Ala His Thr Asn Ala Thr Val Ser Phe Leu Ser
100 105 110

Ala His Cys Ala Ser His Leu Ala Trp Phe Gly Asp Ser Leu Thr Ser 115 120 125

Leu Ser Gln Arg Leu Gln Ile Gln Leu Pro Asp Ser Val Asn Gln Leu 130 .135 140

Leu Arg Tyr Leu Arg Glu Leu Pro Leu Leu Phe His Gln Asn Val Leu 145 150 155 160

Leu Pro Leu Trp His Leu Leu Leu Glu Ala Leu Ala Trp Ala Gln Gly
165 170 175

Ala Leu Pro Xaa 180

<210> 114

<211> 47

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (47)

<223> Xaa equals stop translation

<400> 114

Met Val Trp Phe Ile Tyr Phe Val Leu Gln Gly Leu Phe Cys Pro Lys
1 5 10 15

Asn Glu Gly Ala Ser Pro Gly Leu Gln Phe Pro Thr Leu Ser Leu Ala 20 25 30

Gly His Ala Ser Pro Ala Leu Val Pro His Gly Met Gly Gly Xaa 35 40 45

<210> 115

<211> 81

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (34)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE <222> (43)

```
66
<221> SITE
<222> (81)
<223> Xaa equals stop translation
<400> 115
Met Asn Val Thr Ser Val Ile Leu Val Leu Ile Leu Trp Asn Val Ile
Gly Val Ala Thr Trp Val His Gln Asn Thr Phe Leu Tyr Lys Arg Gln
Met Xaa Glu Leu Lys Arg Leu Lys Asp Arg Val Phe Cys Phe Phe Val
                             40
Leu Ile Trp Leu Leu Gly Ile Lys Ile Arg Pro Arg Ser Leu Lys Ile
                        55
Ser Asn Arg Gly Arg Pro Leu Ile Asp Leu Lys Ser Val Asn Ser Leu
                     70
                                          75
Xaa
<210> 116
<211> 68
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (68)
<223> Xaa equals stop translation
<400> 116
Met Gln Pro Ala Cys Leu Ala Pro Cys Leu Asp Ala Leu Thr Ser Phe
Cys Leu Gly Leu Leu Lys Leu Thr Phe Cys Leu Ala Phe Phe Pro Ser
                                 25
Gly Val Leu Glu Gly Glu Cys Ser Phe Phe Thr Met Ser Arg Ser Leu
Ser His Pro Arg Thr Leu His Arg Tyr Thr Thr Glu Arg Pro Ala His
                                             60
Ser Arg His Xaa
 65
<210> 117
<211> 43
<212> PRT
<213> Homo sapiens
<220>
```

<223> Xaa equals stop translation

<400> 117

Met Phe Leu Val Phe Trp Leu Leu Gly Ile Tyr Phe Cys His Leu Leu 1 5 10 15

Val Ile Thr Val Leu Thr Lys Trp Ile Leu Ala Pro Pro Tyr Leu Met 20 25 30

Ala Gln Thr Thr Thr Pro Gln Ser Leu Tyr Xaa 35 40

<210> 118

<211> 212

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (212)

<223> Xaa equals stop translation

<400> 118

Met Ile Ser Leu Pro Gly Pro Leu Val Thr Asn Leu Leu Arg Phe Leu 1 5 10 15

Phe Leu Gly Leu Ser Ala Leu Asp Val Ile Arg Gly Ser Leu Ser Leu 20 25 30

Thr Asn Leu Ser Ser Met Ala Gly Val Tyr Val Cys Lys Ala His
35 40 45

Asn Glu Val Gly Thr Ala Gln Cys Asn Val Thr Leu Glu Val Ser Thr 50 55 60

Gly Pro Gly Ala Ala Val Val Ala Gly Ala Val Val Gly Thr Leu Val 65 70 75 80

Gly Leu Gly Leu Leu Ala Gly Leu Val Leu Leu Tyr His Arg Arg Gly
85 90 95

Lys Ala Leu Glu Glu Pro Ala Asn Asp Ile Lys Glu Asp Ala Ile Ala 100 105 110

Pro Arg Thr Leu Pro Trp Pro Lys Ser Ser Asp Thr Ile Ser Lys Asn 115 120 125

Gly Thr Leu Ser Ser Val Thr Ser Ala Arg Ala Leu Arg Pro Pro His 130 135 140

Gly Pro Pro Arg Pro Gly Ala Leu Thr Pro Thr Pro Ser Leu Ser Ser 145 150 155 160

Gln Ala Leu Pro Ser Pro Arg Leu Pro Thr Thr Asp Gly Ala His Pro 165 170 175

Gln Pro Ile Ser Pro Ile Pro Gly Gly Val Ser Ser Ser Gly Leu Ser 180 185 190

```
Arg Met Gly Ala Val Pro Val Met Val Pro Ala Gln Ser Gln Ala Gly
           195
                               200
   Ser Leu Val Xaa
       210
  <210> 119
   <211> 44
  <212> PRT
  <213> Homo sapiens
  <220>
  <221> SITE
  <222> (44)
  <223> Xaa equals stop translation
  <400> 119
  Met Lys Leu Pro Trp Asn Ile Val Asn Ile Leu Lys Ala Ser Ala Leu
  Tyr Ala Leu Lys Trp Leu Leu Leu Ile Leu Tyr Tyr Val Ile Phe Thr
                                    25
  Leu Lys Lys Glu Lys Ile Ala Leu Leu Tyr Thr Xaa
                               40
  <210> 120
  <211> 127
  <212> PRT
  <213> Homo sapiens
 <220>
<221> SITE
 <222> (127)
 <223> Xaa equals stop translation
 Met Gly Thr Ser Ala Leu Trp Pro Phe Leu Pro Leu Leu Phe Leu Leu
                                       10
 Gly Phe Leu Phe Ser Ser Cys Gly Phe Pro Glu Ala Ser Phe Gly Pro
                                   25
 Trp Val Val Val Arg Ala Glu Leu Trp Gly Cys Val Val Gly Ala Ala
          35
                              40
                                                   45
 Cys Val Leu Gly Leu Tyr Trp Gln Val Gly Gln Ser Ser Leu Asn Thr
 Leu Ala Arg Ser Gln Lys Pro Gly Leu Arg Val Gln Pro Gly Lys Pro
 65
                      70
 Gly Lys Leu Leu Pro Val Thr Phe Gln Met Leu Pro Pro Pro Cys Gly
                  85
                                                           95
 Gly Cys Cys Ser Pro Leu Gly Leu Cys Pro Ser Ser Gly Gly Ser Arg
```

```
Met Trp Arg Arg Thr Trp Val Gly Ala Arg Ala Leu His Pro Xaa 115 120 125
```

<210> 121

<211> 57

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (57)

<223> Xaa equals stop translation

<400> 121

113

A Service of the serv

N

<u>L</u>L

Met Phe Leu Lys Val Leu Val Phe Leu Ile Phe Phe Ser Pro Phe Ser 1 5 10 15

Ser Ser Leu Phe Ser Gly Glu Ala Val Arg Gly Arg Gly Ala Gly Leu 20 25 30

Gly Leu Gly Ile Gly Arg Gly Trp Thr Ser Cys Leu Ser Val Leu Asn 35 40 45

Gly Cys Asp Gly Ala Arg Ser His Xaa 50 55

<210> 122

<211> 46

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (46)

<223> Xaa equals stop translation

<400> 122

Met Trp Ser Ile Lys Leu Thr Cys Arg Leu Arg Gly Phe Trp Phe Trp 1 5 10 15

Phe Trp Val Leu Phe Phe Cys Gly Gly Gly Ala Gly Ile Trp Lys Asn 20 25 30

Leu Ala Leu Tyr Val Thr Glu Ile Phe Phe Ala Arg Thr Xaa 35 40 45

<210> 123

<211> 58

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (47)

70 <223> Xaa equals any of the naturally occurring L-amino acids <400> 123 . Met Arg Leu Ile Leu Ile Ile Gly Arg Leu Ala Leu Asp Ser Ile Ala 10 Gln Asn Ser Gln Asn Val Ser Gln Ser Ser Gln Gly Ser Tyr His His Gly Ser Ser Pro Pro Arg Pro Val Arg Pro Leu Pro Gly Pro Xaa Arg Arg Arg Asp Pro Ser Leu Asp Cys Cys Ser <210> 124 <211> 57 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (57) <223> Xaa equals stop translation <400> 124 Met Lys Ala Met Leu Gln Cys Phe Arg Phe Tyr Phe Met Arg Leu Phe Val Phe Leu Leu Thr Ser Gly Lys Met Ile Asp Ser Asp Ser Thr Met 25 Gln Gly Cys Trp Tyr Gln Pro Glu Pro Tyr Arg Trp Gln Ser Leu Glu 35 40 Lys Trp Ser Gln Lys Met Glu Leu Xaa 50 <210> 125 <211> 273 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (273) <223> Xaa equals stop translation Met Trp Gly Asn Lys Phe Gly Val Leu Leu Phe Leu Tyr Ser Val Leu 10 Leu Thr Lys Gly Ile Glu Asn Ile Lys Asn Glu Ile Glu Asp Ala Ser 25

Glu Pro Leu Ile Asp Pro Val Tyr Gly His Gly Ser Gln Ser Leu Ile

45

40

Asn Leu Leu Thr Gly His Ala Val Ser Asn Val Trp Asp Gly Asp 50 55 60

Arg Glu Cys Ser Gly Met Lys Leu Leu Gly Ile His Glu Gln Ala Ala 65 70 75 80

Val Gly Phe Leu Thr Leu Met Glu Ala Leu Arg Tyr Cys Lys Val Gly
85 90 95

Ser Tyr Leu Lys Ser Pro Lys Phe Pro Ile Trp Ile Val Gly Ser Glu
100 105 110

Thr His Leu Thr Val Phe Phe Ala Lys Asp Met Ala Leu Val Ala Pro 115 120 125

Glu Ala Pro Ser Glu Gln Ala Arg Arg Val Phe Gln Thr Tyr Asp Pro 130 135 140

Glu Asp Asn Gly Phe Ile Pro Asp Ser Leu Leu Glu Asp Val Met Lys 145 150 155 160

Ala Leu Asp Leu Val Ser Asp Pro Glu Tyr Ile Asn Leu Met Lys Asn 165 170 175

Lys Leu Asp Pro Glu Gly Leu Gly Ile Ile Leu Leu Gly Pro Phe Leu 180 185 190

Gln Glu Phe Phe Pro Asp Gln Gly Ser Ser Gly Pro Glu Ser Phe Thr 195 200 205

Val Tyr His Tyr Asn Gly Leu Lys Gln Ser Asn Tyr Asn Glu Lys Val 210 215 220

Met Tyr Val Glu Gly Thr Ala Val Val Met Gly Phe Glu Asp Pro Met 225 230 235 240

Leu Gln Thr Asp Asp Thr Pro Ile Lys Arg Cys Leu Gln Thr Lys Trp 245 250 255

Pro Tyr Ile Glu Leu Leu Trp Thr Thr Asp Arg Ser Pro Ser Leu Asn 260 265 270

Xaa

<210> 126

<211> 281

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (281)

<223> Xaa equals stop translation

<400> 126

Met Ala Pro Ser Gly Ser Leu Ala Val Pro Leu Ala Val Leu Val Leu

Ų,

L.

L.

n.

<u>ļ</u>.

L	eu	Leu	Trp	Gly	Ala	Pro	Trp	Thr	His	Gly	Arg	Arg	Ser	Asn	Val	Arg
				20					25					30		

Val Ile Thr Asp Glu Asn Trp Arg Glu Leu Leu Glu Gly Asp Trp Met 35 40 45

Ile Glu Phe Tyr Ala Pro Trp Cys Pro Ala Cys Gln Asn Leu Gln Pro 50 55 60

Glu Trp Glu Ser Phe Ala Glu Trp Gly Glu Asp Leu Glu Val Asn Ile 65 70 75 80

Ala Lys Val Asp Val Thr Glu Gln Pro Gly Leu Ser Gly Arg Phe Ile
85 90 95

Ile Thr Ala Leu Pro Thr Ile Tyr His Cys Lys Asp Gly Glu Phe Arg 100 105 110

Arg Tyr Gln Gly Pro Arg Thr Lys Lys Asp Phe Ile Asn Phe Ile Ser 115 120 125

Asp Lys Glu Trp Lys Ser Ile Glu Pro Val Ser Ser Trp Phe Gly Pro 130 135 140

Gly Ser Val Leu Met Ser Ser Met Ser Ala Leu Phe Gln Leu Ser Met 145 150 155 160

Trp Ile Arg Thr Cys His Asn Tyr Phe Ile Glu Asp Leu Gly Leu Pro 165 170 175

Val Trp Gly Ser Tyr Thr Val Phe Ala Leu Ala Thr Leu Phe Ser Gly
180 185 190

Leu Leu Gly Leu Cys Met Ile Phe Val Ala Asp Cys Leu Cys Pro 195 200 205

Ser Lys Arg Arg Pro Gln Pro Tyr Pro Tyr Pro Ser Lys Lys Leu 210 215 220

Leu Ser Glu Ser Ala Gln Pro Leu Lys Lys Val Glu Glu Glu Glu Glu 225 230 235 240

Ala Asp Glu Glu Asp Val Ser Glu Glu Glu Ala Glu Ser Lys Glu Gly 245 250 255

Thr Asn Lys Asp Phe Pro Gln Asn Ala Ile Arg Gln Arg Ser Leu Gly
265 270

Pro Ser Leu Ala Thr Asp Lys Ser Xaa 275 280

<210> 127

<211> 215

<212> PRT

<213> Homo sapiens

```
<220>
```

<221> SITE

<222> (83)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (141)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 127

Met Tyr Gly Lys Ser Ser Thr Arg Ala Val Leu Leu Leu Gly Ile 1 5 10 15

Gln Leu Thr Ala Leu Trp Pro Ile Ala Ala Val Glu Ile Tyr Thr Ser 20 . 25 30

Arg Val Leu Glu Ala Val Asn Gly Thr Asp Ala Arg Leu Lys Cys Thr 35 40 45

Phe Ser Ser Phe Ala Pro Val Gly Asp Ala Leu Thr Val Thr Trp Asn 50 55 60

Phe Arg Pro Leu Asp Gly Gly Pro Glu Gln Phe Val Phe Tyr Tyr His 65 70 75 80

Ile Asp Xaa Phe Gln Pro Met Ser Gly Arg Phe Lys Asp Arg Val Ser 85 90 95

Trp Asp Gly Asn Pro Glu Arg Tyr Asp Ala Ser Ile Leu Leu Trp Lys
100 105 110

Leu Gln Phe Asp Asp Asn Gly Thr Tyr Thr Cys Gln Val Lys Asn Pro 115 120 125

Pro Asp Val Asp Gly Val Ile Gly Asp Ile Arg Leu Xaa Val Val His 130 135 140

Thr Val Arg Phe Ser Glu Ile His Phe Leu Ala Leu Ala Ile Gly Ser 145 150 155 160

Ala Cys Ala Leu Met Ile Ile Ile Val Ile Val Val Val Leu Phe Gln
165 170 175

His Tyr Arg Lys Lys Arg Trp Ala Glu Arg Ala His Lys Val Val Glu
180 185 190

Ile Lys Ser Lys Glu Glu Glu Arg Leu Asn Gln Glu Lys Lys Val Ser 195 200 205

Val Tyr Leu Glu Asp Thr Asp 210 215

<210> 128

<211> 295

<212> PRT

```
74
 <220>
 <221> SITE
 <222> (188)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (211)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (295)
<223> Xaa equals stop translation
<400> 128
Met Pro Arg Gly Asp Ser Glu Gln Val Arg Tyr Cys Ala Arg Phe Ser
                                      10
Tyr Leu Trp Leu Lys Phe Ser Leu Ile Ile Tyr Ser Thr Val Phe Trp
Leu Ile Gly Ala Leu Val Leu Ser Val Gly Ile Tyr Ala Glu Val Glu
Arg Gln Lys Tyr Lys Thr Leu Glu Ser Ala Phe Leu Ala Pro Ala Ile
                         55
Ile Leu Ile Leu Cly Val Val Met Phe Met Val Ser Phe Ile Gly
                                         75
Val Leu Ala Ser Leu Arg Asp Asn Leu Tyr Leu Leu Gln Ala Phe Met
Tyr Ile Leu Gly Ile Cys Leu Ile Met Glu Leu Ile Gly Gly Val Val
                                105
Ala Leu Thr Phe Arg Asn Gln Thr Ile Asp Phe Leu Asn Asp Asn Ile
                            120
Arg Arg Gly Ile Glu Asn Tyr Tyr Asp Asp Leu Asp Phe Lys Asn Ile
Met Asp Phe Val Gln Lys Lys Phe Lys Cys Cys Gly Glu Asp Tyr
                    150
                                        155
Arg Asp Trp Ser Lys Asn Gln Tyr His Asp Cys Ser Ala Pro Gly Pro
                165
Leu Ala Cys Gly Val Pro Tyr Thr Cys Cys Ile Xaa Asn Thr Thr Glu
                                185
Val Val Asn Thr Met Cys Gly Tyr Lys Thr Ile Asp Lys Glu Arg Phe
       195
                            200
                                                205
Ser Val Xaa Asp Val Ile Tyr Val Arg Gly Cys Thr Asn Ala Val Ile
   210
```

Ile Trp Phe Met Asp Asn Tyr Thr Ile Met Ala Gly Ile Leu Leu Gly

Ile Leu Leu Pro Gln Phe Leu Gly Val Leu Leu Thr Leu Leu Tyr Ile 245 250 255

Thr Arg Val Glu Asp Ile Ile Met Glu His Ser Val Thr Asp Gly Leu 260 265 270

Leu Gly Pro Gly Ala Lys Pro Ser Val Glu Ala Ala Gly Thr Gly Cys 275 280 285

Cys Leu Cys Tyr Pro Asn Xaa 290 295

<210> 129

<211> 43

<212> PRT

<213> Homo sapiens

<220>

L.

ðî

ļ.

Ų.

ļa i

N

<221> SITE

<222> (43)

<223> Xaa equals stop translation

<400> 129

Met Tyr Asn Lys Leu Leu Thr Val Val Thr Leu Phe Cys Tyr Gln $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Ile Val Asp Phe Ile Tyr Ser Asn Tyr Ile Phe Ile Ser Ile Asn His

Pro Pro His Pro Pro Asn Ile Leu Val Phe Xaa 35

<210> 130

<211> 73

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (73)

<223> Xaa equals stop translation

<400> 130

Met Gly Asn Phe Thr Ser Tyr Leu Phe Leu Phe Ala Phe Ser Gly Ile 1 5 10 15

Ile Leu Ala Phe Ile Lys Asn Gly Leu Ala Ala Glu Ile Val Leu Ile
20 25 30

Leu Ser Glu Ala Gly Cys Ser Gln Asp Lys Ser Lys Met Val Tyr Leu
35 40 45

Ser Pro Gly Glu Gly Lys Leu Ile Lys Ile Ser Tyr Phe Cys Leu Val
50 55 60

Trp Phe Cys Phe Phe Leu Leu Xaa 65 70

<210> 131

<211> 427

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (427)

<223> Xaa equals stop translation

<400> 131

Met Ile Val Phe Gly Trp Ala Val Phe Leu Ala Ser Arg Ser Leu Gly 1 5 10 15

Gln Gly Leu Leu Thr Leu Glu Glu His Ile Ala His Phe Leu Gly
20 25 30

Thr Gly Gly Ala Ala Thr Thr Met Gly Asn Ser Cys Ile Cys Arg Asp 35 40 45

Asp Ser Gly Thr Asp Asp Ser Val Asp Thr Gln Gln Gln Gln Ala Glu 50 55 60

Asn Ser Ala Val Pro Thr Ala Asp Thr Arg Ser Gln Pro Arg Asp Pro 65 70 75 80

Val Arg Pro Pro Arg Arg Gly Arg Gly Pro His Glu Pro Arg Arg Lys

Lys Gln Asn Val Asp Gly Leu Val Leu Asp Thr Leu Ala Val Ile Arg
100 105 110

Thr Leu Val Asp Asn Asp Gln Glu Pro Tyr Ser Met Ile Thr Leu His

Glu Met Ala Glu Thr Asp Glu Gly Trp Leu Asp Val Val Gln Ser Leu 130 135 140

Ile Arg Val Ile Pro Leu Glu Asp Pro Leu Gly Pro Ala Val Ile Thr 145 150 155 160

Leu Leu Asp Glu Cys Pro Leu Pro Thr Lys Asp Ala Leu Gln Lys 165 170 175

Leu Thr Glu Ile Leu Asn Leu Asn Gly Glu Val Ala Cys Gln Asp Ser 180 185 190

Ser His Pro Ala Lys His Arg Asn Thr Ser Ala Val Leu Gly Cys Leu 195 200 205

Ala Glu Lys Leu Ala Gly Pro Ala Ser Ile Gly Leu Leu Ser Pro Gly 210 215 220

Ile Leu Glu Tyr Leu Leu Gln Cys Leu Lys Leu Gln Ser His Pro Thr 225 230 235 240

Val Met Leu Phe Ala Leu Ile Ala Leu Glu Lys Phe Ala Gln Thr Ser 245 250 255

Glu Asn Lys Leu Thr Ile Ser Glu Ser Ser Ile Ser Asp Arg Leu Val 260 265 270

Thr Leu Glu Ser Trp Ala Asn Asp Pro Asp Tyr Leu Lys Arg Gln Val 275 280 285

Gly Phe Cys Ala Gln Trp Ser Leu Asp Asn Leu Phe Leu Lys Glu Gly 290 295 300

Arg Gln Leu Thr Tyr Glu Lys Val Asn Leu Ser Ser Ile Arg Ala Met 305 310 315 320

Leu Asn Ser Asn Asp Val Ser Glu Tyr Leu Lys Ile Ser Pro His Gly 325 330 335

Leu Glu Ala Arg Cys Asp Ala Ser Ser Phe Glu Ser Val Arg Cys Thr 340 345 350

Phe Cys Val Asp Ala Gly Val Trp Tyr Tyr Glu Val Thr Val Val Thr 355 360 365

Ser Gly Val Met Gln Ile Gly Trp Val Thr Arg Asp Ser Lys Phe Leu 370 375 380

Asn His Glu Gly Tyr Gly Ile Gly Asp Asp Glu Tyr Ser Cys Ala Tyr 385 390 395 400

Asp Gly Cys Arg Gln Leu Ile Trp Tyr Asn Ala Arg Ser Ser Leu Thr 405 410 415

Tyr Thr His Ala Gly Lys Lys Glu Ile Gln Xaa 420 425

<210> 132

<211> 323

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (323)

<223> Xaa equals stop translation

<400> 132

Met Pro Pro Arg Gly Pro Ala Ser Glu Leu Leu Leu Leu Arg Leu Leu 1 5 10 15

Leu Leu Gly Ala Ala Thr Ala Ala Pro Leu Ala Pro Arg Pro Ser Lys 20 25 30

Glu Glu Leu Thr Arg Cys Leu Ala Glu Val Val Thr Glu Val Leu Thr
35 40 45

Val Gly Gln Val Gln Arg Gly Pro Cys Thr Ala Leu Leu His Lys Glu

Leu	Cys	Gly	Thr	Glu	Pro	His	Gly	Cys	Ala	Ser	Thr	Glu	Glu	Lys	Gly
65		•			70					75				_	80

Leu Leu Gly Asp Phe Lys Lys Gln Glu Ala Gly Lys Met Arg Ser
85 90 95

Ser Gln Glu Val Arg Asp Glu Glu Glu Glu Glu Val Ala Glu Arg Thr 100 105 110

His Lys Ser Glu Val Gln Glu Gln Ala Ile Arg Met Gln Gly His Arg
115 120 125

Gln Leu His Gln Glu Glu Asp Glu Glu Glu Glu Lys Glu Glu Arg Lys 130 135 140

Arg Gly Pro Met Glu Thr Phe Glu Asp Leu Trp Gln Arg His Leu Glu 145 150 155 160

Asn Gly Gly Asp Leu Gln Lys Arg Val Ala Glu Lys Ala Ser Asp Lys 165 170 175

Glu Thr Ala Gln Phe Gln Ala Glu Glu Lys Gly Val Arg Val Leu Gly
180 185 190

Gly Asp Arg Ser Leu Trp Gln Gly Ala Glu Arg Gly Gly Glu Arg 195 200 205

Arg Glu Asp Leu Pro His His His His His His Gln Pro Glu Ala 210 215 220

Glu Pro Arg Gln Glu Lys Glu Glu Ala Ser Glu Arg Glu Val Ser Arg 225 230 235 240

Gly Met Lys Glu Glu His Gln His Ser Leu Glu Ala Gly Leu Met Met 245 250 255

Val Ser Gly Val Thr Thr His Ser His Arg Cys Trp Pro Cys Thr Thr 260 265 270

Arg Ser Ile Thr Ser Gly Ser Gln Trp Pro Arg Leu Thr Pro Arg Leu 275 280 285

Ala Asn Asn Phe Arg Ala Arg Pro Leu Pro Tyr Thr Ser Thr Leu Leu 290 295 300

Tyr Gly Leu Gln Gln Pro Arg Trp His His Cys Thr Glu Ala Ser His 305 310 315 320

His His Xaa

<210> 133

<211> 56

<212> PRT

```
79
 <220>
 <221> SITE
 <222> (56)
 <223> Xaa equals stop translation
 <400> 133
 Met Leu Phe Leu Arg Ser Ile Leu Trp Leu Ser Ser Leu Phe Phe Cys
                                       10
 His Phe Val Pro Thr Ser His Ser Leu Gly Phe Gln Asn Ile Thr Ser
                                   25
 Val Tyr Asn Ala Thr Leu Gln Gln Thr Val Phe Gln His Asp Ser Lys
                              40
 Thr Val Thr Thr Cys Phe Thr Xaa
<210> 134
<211> 76
 <212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (76)
<223> Xaa equals stop translation
<400> 134
Met Phe Cys Val Phe Ile Leu Thr Phe Phe Met Val Phe Asn Leu Trp
                                      10
Leu Ala Ala Thr Val Tyr His Val Tyr Gly Thr Cys Lys Lys Val Leu
                                  25
                                                      30
Asp Ile Gln Ile Leu Arg Asp Glu Ile Thr Phe Thr Tyr Lys Asn His
Phe Tyr Cys Gly Leu Thr Ala Leu Ser Ser Arg Ile Leu Asn Asp Ile
                         55
Thr Asn Ile Leu His Val Ile Cys Ser Phe Glu Xaa
<210> 135
<211> 335
<212> PRT
<213> Homo sapiens
<400> 135
Met Met Ala Arg Gln Lys Gly Ile Phe Tyr Leu Thr Leu Phe Leu Ile
Leu Gly Thr Cys Thr Leu Phe Phe Ala Phe Glu Cys Arg Tyr Leu Ala
             20
```

Val Gln Leu Ser Pro Ala Ile Pro Val Phe Ala Ala Met Leu Phe Leu

Phe	Ser 50		Ala	a Thr	: Leu	. Leu 55		Thr	Ser	. Phe	Ser 60		Pro	Gly	Val
Ile 65		Arg	, Alá	a Lev	Pro 70		Glu	Ala	ı Ala	Phe 75		Glu	ı Met	Glu	11e 80
Glu	ı Ala	. Thr	Asn	ı Gly 85	Ala	Val	Pro	Gln	Gly 90		Arg	Pro	Pro	Pro 95	_
Ile	Lys	Asn	Phe 100		Ile	Asn	Asn	Gln 105		· Val	Lys	Leu	Lys 110	Tyr	Cys
Tyr	Thr	Cys 115		Ile	Phe	Arg	Pro 120	Pro	Arg	Ala	Ser	His 125		Ser	Ile
Cys	Asp 130	Asn	Cys	Val	Glu	Arg 135	Phe	Asp	His	His	Cys 140	Pro	Trp	Val	Gly
Asn 145	Cys	Val	Gly	Lys	Arg 150	Asn	Tyr	Arg	Tyr	Phe 155	Tyr	Leu	Phe	Ile	Leu 160
Ser	Leu	Ser	Leu	Leu 165	Thr	Ile	Tyr	Val	Phe 170	Ala	Phe	Asn	Ile	Val 175	Tyr
Val	Ala	Leu	Lys 180	Ser	Leu	Lys	Ile	Gly 185	Phe	Leu	Glu	Thr	Leu 190	Lys	Glu
Thr	Pro	Gly 195	Thr	Val	Leu	Glu	Val 200	Leu	Ile	Cys	Phe	Phe 205	Thr	Leu	Trp
Ser	Val 210	Val	Gly	Leu	Thr	Gly 215	Phe	His	Thr	Phe	Leu 220	Val	Ala	Leu	Asn
Gln 225	Thr	Thr	Asn	Glu	Asp 230	Ile	Lys	Gly	Ser	Trp 235	Thr	Gly	Lys	Asn	Arg 240
Val	Gln	Asn	Pro	Tyr 245	Ser	His	Gly	Asn	Ile 250	Val	Lys	Asn	Cys	Cys 255	Glu
Val	Leu	Cys	Gly 260	Pro	Leu	Pro	Pro	Ser 265	Val	Leu	Asp	Arg	Arg 270	Gly	Ile
Leu	Pro	Leu 275	Glu	Glu	Ser		Ser 280	Arg	Pro	Pro		Thr 285	Gln	Glu	Thr
	Ser 290	Ser	Leu	Leu	Pro	Gln 295	Ser	Pro	Ala		Thr 300	Glu	His	Leu	Asn
Ser 305	Asn	Glu	Met	Pro	Glu . 310	Asp	Ser	Ser	Thr	Pro 315	Glu	Glu	Met		Pro 320
Pro	Glu	Pro		Glu 325	Pro :	Pro (Gln		Ala 330	Ala	Glu .	Ala		Lys 335	

```
81
 <212> PRT
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (66)
 <223> Xaa equals stop translation
 <400> 136
Met Phe His Cys Trp Ser Leu Phe Leu Tyr Tyr Phe Ser Leu Ser Leu
Ser Ser Tyr His Arg Lys Cys Ile Leu Leu Arg Met Lys Ile Lys Glu
Gln Ser Arg Asp Val Pro Cys Gln Gly Ala Gln Gln Ser His Pro Lys
Phe His Leu Asp His His Leu Pro Asp Tyr Pro His Thr Asn Leu Leu
                          55
Pro Xaa
 65
<210> 137
<211> 63
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (63)
<223> Xaa equals stop translation
<400> 137
Met Ala Val Arg Cys Ile Leu Ala Gly Gly Cys Leu Pro Ala Val Arg
Gly Thr Phe Ser Val Leu Leu Lys Gly Met Tyr Lys Pro Met Gly Asp
Leu Ile Ser Cys Val Phe Arg Cys Val Ala Gly Gly Leu Gly Trp Gly
Gly Gly Ala Ser Glu Gln Cys Val Glu Ser Leu Val Val Thr Xaa
<210> 138
<211> 379
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (379)
```

<223> Xaa equals stop translation

<400> 138

Met Ser Lys Glu Pro Leu Ile Leu Trp Leu Met Ile Glu Phe Trp Trp 1 5 10 15

Leu Tyr Leu Thr Pro Val Thr Ser Glu Thr Val Val Thr Glu Val Leu 20 25 30

Gly His Arg Val Thr Leu Pro Cys Leu Tyr Ser Ser Trp Ser His Asn
35 40 45

Ser Asn Ser Met Cys Trp Gly Lys Asp Gln Cys Pro Tyr Ser Gly Cys 50 55 60

Lys Glu Ala Leu Ile Arg Thr Asp Gly Met Arg Val Thr Ser Arg Lys 65 70 75 80

Ser Ala Lys Tyr Arg Leu Gln Gly Thr Ile Pro Arg Gly Asp Val Ser 85 90 95

Leu Thr Ile Leu Asn Pro Ser Glu Ser Asp Ser Gly Val Tyr Cys Cys 100 105 110

Arg Ile Glu Val Pro Gly Trp Phe Asn Asp Val Lys Ile Asn Val Arg 115 120 125

Leu Asn Leu Gln Arg Ala Ser Thr Thr Thr His Arg Thr Ala Thr Thr 130 140

Thr Thr Arg Arg Thr Thr Thr Thr Ser Pro Thr Thr Thr Arg Gln Met 145 150 155 160

Thr Thr Pro Ala Ala Leu Pro Thr Thr Val Val Thr Thr Pro Asp 165 170 175

Leu Thr Thr Gly Thr Pro Leu Gln Met Thr Thr Ile Ala Val Phe Thr
180 185 190

Thr Ala Asn Thr Cys Leu Ser Leu Thr Pro Ser Thr Leu Pro Glu Glu 195 200 205

Ala Thr Gly Leu Leu Thr Pro Glu Pro Ser Lys Glu Gly Pro Ile Leu 210 215 220

Thr Ala Glu Ser Glu Thr Val Leu Pro Ser Asp Ser Trp Ser Ser Ala 225 230 235 240

Glu Ser Thr Ser Ala Asp Thr Val Leu Leu Thr Ser Lys Glu Ser Lys 245 250 255

Val Trp Asp Leu Pro Ser Thr Ser His Val Ser Met Trp Lys Thr Ser 260 265 270

Asp Ser Val Ser Ser Pro Gln Pro Gly Ala Ser Asp Thr Ala Val Pro 275 280 285

Glu Gln Asn Lys Thr Thr Lys Thr Gly Gln Met Asp Gly Ile Pro Met 290 295 300

Ser Met Lys Asn Glu Met Pro Ile Ser Gln Leu Leu Met Ile Ile Ala

Pro Ser Leu Gly Phe Val Leu Phe Ala Leu Phe Val Ala Phe Leu Leu

Arg Gly Lys Leu Met Glu Thr Tyr Cys Ser Gln Lys His Thr Arg Leu 340 345 350

Asp Tyr Ile Gly Asp Ser Lys Asn Val Leu Asn Asp Val Gln His Gly 355 360 365

Arg Glu Asp Glu Asp Gly Leu Phe Thr Leu Xaa 370 375

<210> 139

<211> 47

<212> PRT

<213> Homo sapiens

<220>

Oj

<u>L</u>a

L.

Ų.

T.

<u>L</u>

[]

<221> SITE

<222> (47)

<223> Xaa equals stop translation

<400> 139

Met Ile His Arg Ala Arg Ser Leu Ala Ala Leu Ser Ser Leu Met Leu 1 5 10 15

Tyr Thr Lys Leu Val Gln Pro Val Ala Cys Ile Ser His Val Ala Gln 20 25 . 30

Asp Gly Phe Glu Tyr Gly Pro Thr Gln Ile His Lys Leu Ser Xaa 35 40 45

<210> 140

<211> 206

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (206)

<223> Xaa equals stop translation

<400> 140

Met Lys Thr Gly Leu Val Leu Val Leu Gly His Val Ser Phe Ile 1 5 10 - 15

Thr Ala Ala Leu Phe His Gly Thr Val Leu Arg Tyr Val Gly Thr Pro 20 25 30

Gln Asp Ala Val Ala Leu Gln Tyr Cys Val Val Asn Ile Leu Ser Val 35 40 45

Thr Ser Ala Ile Val Val Ile Thr Ser Gly Ile Ala Ala Ile Val Leu 50 55 60

Ser Arg Tyr Leu Pro Ser Thr Pro Leu Arg Trp Thr Val Phe Ser Ser 65 70 75 80

Ser Val Ala Cys Ala Leu Leu Ser Leu Thr Cys Ala Leu Gly Leu Leu
85 90 95

Ala Ser Ile Ala Met Thr Phe Ala Thr Gln Gly Lys Ala Leu Leu Ala 100 105 110

Ala Cys Thr Phe Gly Ser Ser Glu Leu Leu Ala Leu Ala Pro Asp Cys
115 120 125

Pro Phe Asp Pro Thr Arg Ile Tyr Ser Ser Ser Leu Cys Leu Trp Gly 130 135

Ile Ala Leu Val Leu Cys Val Ala Glu Asn Val Phe Ala Val Arg Cys 145 150 155 160

Ala Gln Leu Thr His Gln Leu Leu Glu Leu Arg Pro Trp Trp Gly Lys 165 170 175

Ser Ser His His Met Met Arg Glu Asn Pro Glu Leu Val Glu Gly Arg
180 185 190

Asp Leu Leu Ser Cys Thr Ser Ser Glu Pro Leu Thr Leu Xaa 195 200 205

<210> 141

<211> 221

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (221)

<223> Xaa equals stop translation

<400> 141

Met Pro Pro Arg Arg Pro Trp Asp Arg Glu Ala Gly Thr Leu Gln Val

1 5 10 15

Leu Gly Ala Leu Ala Val Leu Trp Leu Gly Ser Val Ala Leu Ile Cys 20 25 30

Leu Leu Trp Gln Val Pro Arg Pro Pro Thr Trp Gly Gln Val Gln Pro
35 40 45

Lys Asp Val Pro Arg Ser Trp Glu His Gly Phe Gln Pro Ser Leu Gly 50 55 60

Ala Pro Gly Ser Arg Gly Pro Gly Ser Arg Gly Thr Pro Ala Ser Leu 65 70 75 80

Ser Leu Trp Lys Ala Ser Pro Arg Thr Cys His Leu Gln Pro Ala Ala 85 90 95

Pro Leu Pro Ser Leu Trp Ala Arg Pro Gly Cys Ser Cys Trp Thr Leu 100 105 110

Pro Arg Arg Ala Ser Thr Trp Leu His Thr Thr Gly Pro Ser Gln Gly 115 120 125

Leu Thr Ser Gly Ser Thr Thr Arg Leu Pro Ser Trp Glu Arg Leu Phe 130 135 140

Cys Arg Ser Cys Ser Ser Cys Trp Ala Gly Thr Phe Pro Trp Leu Trp 145 150 155 160

Pro Pro Ala Ala Arg His Trp Pro Gly His Pro Pro Thr Cys Arg Phe
165 170 175

Trp Leu Pro Glu Val Pro Met Tyr Asp Arg Cys Pro Trp Gly Gly Ser 180 185 190

Pro Trp Val Phe Cys Thr Pro Asn Ser Gly Leu Trp Met Asp Gly Thr
195 200 205

Tyr Thr Trp Ala Val Pro Thr Trp Thr Gly Gly Leu Xaa 210 215 220

<210> 142

<211> 60

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (60)

<223> Xaa equals stop translation

<400> 142

Met Leu Leu Cys Ile Leu Ile Phe Lys Val His Leu Leu Leu Phe Cys $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Arg Ser Phe Ser Ala Phe Leu Asn Leu Lys Glu Arg Phe Leu Phe Leu 20 25 30

Ile Leu Val Trp Ile Phe Val Ala Phe Tyr Gly Cys Lys Tyr Ser Pro $35 \hspace{1cm} 40 \hspace{1cm} 45$

Leu Ser Phe Asp Ser Phe Lys Ser Leu Gly Ser Xaa 50 55 60

<210> 143

<211> 67

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (67)

<223> Xaa equals stop translation

<400> 143

Met Leu Leu Ile Ser Ala Val Gln Val Phe Ile Leu Leu Ser Pro Ser

Phe Tyr Leu Ile Leu Tyr Leu Leu Arg Pro Gly Gly Thr Gly Arg Gly 20 25 30

Leu Glu Pro Ile Cys Pro Ala Ala Glu Trp Gly Gly Trp Arg Asp Gly 35 40 45

Tyr Leu Trp Leu Gln Tyr Gln Glu Pro Thr Val Ser Leu Asp Asn Trp 50 55 60

Gly Asn Xaa 65

<210> 144

<211> 59

<212> PRT

<213> Homo sapiens

<220>

Li Li

U,

T.

11

<221> SITE

<222> (59)

<223> Xaa equals stop translation

<400> 144

Met Val Ile Ser Ile Phe Phe Ser Leu Pro Phe Ser Thr Ser Ala Tyr

1 10 15

Thr Leu Ile Ala Pro Asn Ile Asn Arg Arg Asn Glu Ile Gln Arg Ile
20 25 . 30

Ala Asp Arg Ser Trp Pro Thr Trp Arg Ser Gly Arg Ser Arg Thr Glu 35 40 45

Leu Asn Arg Phe Thr Trp Cys Pro Asp Gly Xaa 50

<210> 145

<211> 68

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (68)

<223> Xaa equals stop translation

<400> 145

Met Lys Gln His Gln Lys Leu Trp Arg Leu Gly Phe Leu Leu Cys Phe 1 5 10 15

Asn Leu Val Phe Cys Val Leu Gly Arg Arg His Pro Trp Pro Trp Ala 20 25 30

Val Arg Pro Leu Met Cys Val Tyr Ala Asp Arg Glu Leu Leu Gly Trp
35 40 45

Leu Leu Arg Trp Val Val Leu Leu Val Phe Ser Val Leu Lys Leu Ile
50 55 60

Phe Arg Leu Xaa

<210> 146

<211> 177

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (177)

<223> Xaa equals stop translation

<400> 146

Met Ala Ser Val Phe Val Cys Leu Leu Leu Ser Gly Leu Ala Val Phe 1 5 10 15

Phe Leu Phe Pro Arg Ser Ile Asp Val Lys Tyr Ile Gly Val Lys Ser 20 25 30

Thr Asn Thr Leu Asn Ile Thr Asn Asn Asn Tyr Tyr Ser Val Glu Val
50 55 60

Glu Asn Ile Thr Ala Gln Val Gln Phe Ser Lys Thr Val Ile Gly Lys
65 70 75 80

Ala Arg Leu Asn Asn Ile Ser Ile Ile Gly Pro Leu Asp Met Lys Gln 85 90 95

Ile Asp Tyr Thr Val Pro Thr Val Ile Ala Glu Glu Met Ser Tyr Met
100 105 110

Tyr Asp Phe Cys Thr Leu Ile Ser Ile Lys Val His Asn Ile Val Leu 115 120 125

Met Met Gln Val Thr Val Thr Thr Thr Tyr Phe Gly His Ser Glu Gln 130 135 140

Ile Ser Gln Glu Arg Tyr Gln Tyr Val Asp Cys Gly Arg Asn Thr Thr 145 150 155 160

Tyr Gln Leu Gly Gln Ser Glu Tyr Leu Asn Val- Leu Gln Pro Gln Gln 165 170 175

Xaa

<210> 147

<211> 120

<212> PRT

```
<220>
 <221> SITE
 <222> (120)
 <223> Xaa equals stop translation
 Met Arg Arg Leu Leu Val Thr Ser Leu Val Val Leu Leu Trp
 Glu Ala Gly Ala Val Pro Ala Pro Lys Val Pro Ile Lys Met Gln Val
                                  25
Lys His Trp Pro Ser Glu Gln Asp Pro Glu Lys Ala Trp Gly Ala Arg
                             40
Val Val Glu Pro Pro Glu Lys Asp Gln Leu Val Val Leu Phe Pro
Val Gln Lys Pro Lys Leu Leu Thr Thr Glu Glu Lys Pro Arg Gly Thr
                                         75
Lys Ala Trp Met Glu Thr Glu Asp Thr Leu Gly Arg Val Leu Ser Pro
Glu Pro Asp His Asp Ser Leu Tyr His Pro Pro Pro Glu Glu Asp Gln
            100
                                105
Gly Glu Glu Arg Pro Arg Leu Xaa
        115
<210> 148
<211> 265
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (265)
<223> Xaa equals stop translation
<400> 148
Met Pro Phe Arg Leu Leu Ile Pro Leu Gly Leu Leu Cys Ala Leu Leu
Pro Gln His His Gly Ala Pro Gly Pro Asp Gly Ser Ala Pro Asp Pro
Ala His Tyr Arg Glu Arg Val Lys Ala Met Phe Tyr His Ala Tyr Asp
Ser Tyr Leu Glu Asn Ala Phe Pro Phe Asp Glu Leu Arg Pro Leu Thr
     50
Cys Asp Gly His Asp Thr Trp Gly Ser Phe Ser Leu Thr Leu Ile Asp
```

Ala Leu Asp Thr Leu Leu Ile Leu Gly Asn Val Ser Glu Phe Gln Arg

n.

<u></u>

	89	
85	90	95

Val Val Glu Val Leu Gln Asp Ser Val Asp Phe Asp Ile Asp Val Asn
100
110

Ala Ser Val Phe Glu Thr Asn Ile Arg Val Val Gly Gly Leu Leu Ser 115 120 125

Ala His Leu Leu Ser Lys Lys Ala Gly Val Glu Val Glu Ala Gly Trp 130 135 140

Leu Leu Pro Ala Phe Gln Thr Pro Thr Gly Met Pro Tyr Gly Thr Val 165 170 175

Asn Leu Leu His Gly Val Asn Pro Gly Glu Thr Pro Val Thr Cys Thr 180 185 190

Ala Gly Ile Gly Thr Phe Ile Val Glu Phe Ala Thr Leu Ser Ser Leu 195 200 205

Thr Gly Asp Pro Val Phe Glu Asp Val Ala Arg Val Ala Leu Met Arg 210 215 220

Leu Trp Glu Ser Arg Ser Asp Ile Gly Leu Val Gly Asn His Ile Asp 225 230 235 240

Val Leu Thr Gly Lys Gly Trp Pro Arg Thr Gln Ala Ser Gly Leu Ala 245 250 255

Trp Thr Pro Thr Leu Ser Thr Trp Xaa 260 265

<210> 149

<211> 92

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (84)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (92)

<223> Xaa equals stop translation

<400> 149

Met Tyr Gly Lys Ser Ser Thr Arg Ala Val Leu Leu Leu Gly Ile 1 5 10 15

Gln Leu Thr Ala Leu Trp Pro Ile Ala Ala Val Glu Ile Tyr Thr Ser 20 25 30

Arg Val Leu Glu Ala Val Asn Gly Thr Asp Ala Arg Leu Lys Cys Thr

<u>L</u>

L.

14

<u>L</u>i

 Phe Ser Ser Phe Ala Pro Val Gly Asp Ala Leu Thr Val Thr Trp Asn 50 55 60

Phe Arg Pro Leu Asp Gly Gly Pro Glu Gln Phe Val Phe Tyr Tyr His 65 70 75 80

Ile Asp Pro Xaa Pro Thr His Glu Trp Ala Val Xaa 85 90

<210> 150

<211> 185

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (185)

<223> Xaa equals stop translation

<400> 150

Met Leu Phe Leu Phe Ser Met Ala Thr Leu Leu Arg Thr Ser Phe Ser 1 5 10 15

Asp Pro Gly Val Ile Pro Arg Ala Leu Pro Asp Glu Ala Ala Phe Ile 20 25 30

Glu Met Glu Ile Glu Ala Thr Asn Gly Ala Val Pro Gln Gly Gln Arg 35 40 . 45

Pro Pro Pro Arg Ile Lys Asn Phe Gln Ile Asn Asn Gln Ile Val Lys 50 55 60

Leu Lys Tyr Cys Tyr Thr Cys Lys Ile Phe Arg Pro Pro Arg Ala Ser 65 70 75 80

His Cys Ser Ile Cys Asp Asn Cys Val Glu Arg Phe Asp His His Cys 85 90 95

Pro Trp Val Gly Asn Cys Val Gly Lys Arg Asn Tyr Arg Tyr Phe Tyr 100 105 110

Leu Phe Ile Leu Ser Leu Ser Leu Leu Thr Ile Tyr Val Phe Ala Phe 115 120 125

Asn Ile Val Tyr Val Ala Leu Lys Ser Leu Lys Ile Gly Phe Leu Glu 130 135 - 140

Thr Leu Lys Gly Asn Ser Trp Asn Cys Ser Arg Ser Pro His Leu Leu 145 150 155 160

Leu Tyr Thr Leu Val Arg Arg Gly Thr Asp Trp Ile.Ser Tyr Phe Pro 165 170 175

Arg Gly Ser Gln Pro Asp Asn Gln Xaa 180 185

```
<210> 151
 <211> 21
 <212> PRT
 <213> Homo sapiens
 <400> 151
 Gly Ser Phe Leu Gly Ser Thr Asn Arg Asp Arg Glu Ser Leu Ala Phe
                   5
 Gln Phe Cys Ala Gly
              20
 <210> 152
 <211> 19
 <212> PRT
 <213> Homo sapiens
<400> 152
His Glu Val Glu Glu Lys Phe Asn Ser Pro Leu Met Gln Thr Glu Gly
  1
                   5
                                      10
Asp Ile Gln
<210> 153
<211> 423
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (193)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (215) 1
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (242)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (361)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (378)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 153
Ile Asn Phe Ser Glu Met Thr Leu Gln Glu Leu Val His Lys Ala Ala
```

Sei	c Cys	з Ту	y Met 20		p Arg	y Val	L Ala	a Val		Ph∈	e Asp	Glu	30 30		. Asn
Glr	ı Lei	ı Pro		L Туг	Tyr	Thr	Tyr 40		Thr	. Val	Val	Asn 45		Ala	. Ser
Glu	Leu 50		Asr	n Phe	e Leu	Leu 55		His	Cys	a Asp	Phe 60	Gln	Gly	Ile	Arg
Glu 65		e Gly	r Leu	і Туг	70		Pro	Gly	'Ile	Asp 75	Leu	Pro	Ser	Trp	Ile 80
Leu	Gly	rIle	e Leu	Gln 85	Val	Pro	Ala	Ala	Tyr 90		Pro	Ile	Glu	Pro 95	Asp
Ser	Pro	Pro	Ser 100		Ser	Thr	His	Phe 105	Met	Lys	Lys	Cys	Asn 110	Leu	Lys
Tyr	Ile	Leu 115		Glu	Lys	Lys	Gln 120	Ile	Asn	Lys	Phe	Lys 125	Ser	Phe	His
Glu	Thr 130	Leu	Leu	Asn	Tyr	Asp 135	Thr	Phe	Thr	Val	Glu 140	His	Asn	Asp	Leu
Val 145	Leu	Phe	Arg	Leu	His 150	Trp	Lys	Asn	Thr	Glu 155	Val	Asn	Leu	Met	Leu 160
Asn	Asp	Gly	Lys	Glu 165	Lys	Tyr	Glu	Lys	Glu 170	Lys	Ile	Lys	Ser	Ile 175	Ser
Ser	Glu	His	Val 180	Asn	Glu	Glu	Lys	Ala 185	Glu	Glu	His	Met	Asp 190	Leu	Arg
Xaa	Lys	His 195	Cys	Leu	Ala	Tyr	Val 200	Leu	His	Thr	Ser	Gly 205	Thr	Thr	Gly
Ile	Pro 210	Lys	Ile	Val	Arg	Xaa 215	Pro	His	Lys	Cys	Ile 220	Val	Pro	Asn	Ile
Gln 225	His	Phe	Arg	Val	Leu 230	Phe	Asp	Ile	Thr	Gln 235	Glu	Asp	Val	Leu	Phe 240
Leu	Xaa	Ser	Pro	Leu 245	Thr	Phe	Asp	Pro	Ser 250	Val	Val	Glu	Ile	Phe 255	Leu
Ala	Leu	Ser	Ser 260	Gly	Ala	Ser	Leu	Leu 265	Ile	Val_	Pro	Thr	Ser 270	Val	Lys
Leu	Leu	Pro 275	Ser	Lys	Leu	Ala	Ser 280	Val	Leu	Phe		His 285	His	Arg	Val
Thr	Val 290	Leu	Gln	Ala	Thr	Pro 295	Thr	Leu	Leu		Arg 300	Phe	Gly	Ser	Gln
Leu 305	Ile	Lys	Ser	Thr	Val 310	Leu	Ser	Ala	Thr	Thr 315	Ser	Leu	Arg		Leu 320

Ala Leu Gly Gly Glu Ala Phe Pro Ser Leu Thr Val Leu Arg Ser Trp 325 330 335

Arg Gly Glu Gly Asn Lys Thr Gln Ile Phe Asn Val Tyr Gly Ile Thr 340 345 350

Glu Val Ser Ser Trp Ala Thr Ile Xaa Arg Ile Pro Glu Lys Thr Leu 355 360 . 365

Asn Ser Thr Leu Lys Cys Glu Leu Pro Xaa Gln Leu Gly Phe Pro Leu 370 375 380

Leu Gly Thr Val Val Glu Val Arg Asp Thr Asn Gly Phe Thr Ile Gln 385 390 395 400

Glu Gly Ser Gly Gln Val Phe Leu Gly Cys Phe Ile Phe Val Asp Trp 405 410 415

Glu Phe Phe Gln Glu Lys 420

<210> 154

<211> 44

<212> PRT

<213> Homo sapiens

<400> 154

Ile Asn Phe Ser Glu Met Thr Leu Gln Glu Leu Val His Lys Ala Ala 1 5 10 15

Ser Cys Tyr Met Asp Arg Val Ala Val Cys Phe Asp Glu Cys Asn Asn 20 25 30

Gln Leu Pro Val Tyr Tyr Thr Tyr Lys Thr Val Val 35

<210> 155

<211> 47

<212> PRT

<213> Homo sapiens

<400> 155

Asn Ala Ala Ser Glu Leu Ser Asn Phe Leu Leu His Cys Asp Phe 1 5 10 15

Gln Gly Ile Arg Glu Ile Gly Leu Tyr Cys Gln Pro Gly Ile Asp Leu
20 25 30

Pro Ser Trp Ile Leu Gly Ile Leu Gln Val Pro Ala Ala Tyr Val

<210> 156

<211> 46

<212> PRT

```
94
 <400> 156
 Pro Ile Glu Pro Asp Ser Pro Pro Ser Leu Ser Thr His Phe Met Lys
 Lys Cys Asn Leu Lys Tyr Ile Leu Val Glu Lys Lys Gln Ile Asn Lys
                                  25
 Phe Lys Ser Phe His Glu Thr Leu Leu Asn Tyr Asp Thr Phe
 <210> 157
 <211> 47
 <212> PRT
 <213> Homo sapiens
 <400> 157
 Thr Val Glu His Asn Asp Leu Val Leu Phe Arg Leu His Trp Lys Asn
                                     10
 Thr Glu Val Asn Leu Met Leu Asn Asp Gly Lys Glu Lys Tyr Glu Lys
              20
                                  25
Glu Lys Ile Lys Ser Ile Ser Ser Glu His Val Asn Glu Glu Lys
<210> 158
<211> 46
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (9)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (31)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 158
Ala Glu Glu His Met Asp Leu Arg Xaa Lys His Cys Leu Ala Tyr Val
Leu His Thr Ser Gly Thr Thr Gly Ile Pro Lys Ile Val Arg Xaa Pro
                                 25 _ 30
His Lys Cys Ile Val Pro Asn Ile Gln His Phe Arg Val Leu
                             40
<210> 159
<211> 48
```

<220>

<212> PRT

```
<221> SITE <222> (12) <223> Xaa 6
```

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 159

Phe Asp Ile Thr Gln Glu Asp Val Leu Phe Leu Xaa Ser Pro Leu Thr 1 5 10 15

Phe Asp Pro Ser Val Val Glu Ile Phe Leu Ala Leu Ser Ser Gly Ala 20 25 30

Ser Leu Leu Ile Val Pro Thr Ser Val Lys Leu Leu Pro Ser Lys Leu 35 40 45

<210> 160 <211> 46

<212> PRT

<213> Homo sapiens

<400> 160

Ala Ser Val Leu Phe Ser His His Arg Val Thr Val Leu Gln Ala Thr 1 5 10 15

Pro Thr Leu Leu Arg Arg Phe Gly Ser Gln Leu Ile Lys Ser Thr Val

Leu Ser Ala Thr Thr Ser Leu Arg Val Leu Ala Leu Gly Gly 35 40 45

<210> 161

<211> 47

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (37)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 161

Glu Ala Phe Pro Ser Leu Thr Val Leu Arg Ser Trp Arg Gly Glu Gly
1 5 10 15

Asn Lys Thr Gln Ile Phe Asn Val Tyr Gly Ile Thr Glu Val Ser Ser 20 25 30

Trp Ala Thr Ile Xaa Arg Ile Pro Glu Lys Thr Leu Asn Ser Thr 35 40 45

<210> 162

<211> 52

<212> PRT

<220> <221> SITE

```
<220>
 <221> SITE
 <222> (7)
 <223> Xaa equals any of the naturally occurring L-amino acids
 Leu Lys Cys Glu Leu Pro Xaa Gln Leu Gly Phe Pro Leu Leu Gly Thr
 Val Val Glu Val Arg Asp Thr Asn Gly Phe Thr Ile Gln Glu Gly Ser
                                  25
 Gly Gln Val Phe Leu Gly Cys Phe Ile Phe Val Asp Trp Glu Phe Phe
 Phe Gln Glu Lys
     50
<210> 163
<211> 43
<212> PRT
<213> Homo sapiens
<400> 163
Glu Ala Lys Ala Gln Phe Trp Leu Leu His Ser Tyr Leu Phe Cys His
                            10
Ser Ser Asn Val Pro Asp Leu Leu Arg Pro Arg Met Thr Asn Asp Ser
                                 25
Glu Gly Lys Met Gly Phe Lys His Pro Lys Ile
        35
<210> 164
<211> 40
<212> PRT
<213> Homo sapiens
<400> 164
Gly Thr Ser Gly Asp Gly Ala Lys Met Ile Ser Gly His Leu Leu Gln
Glu Pro Thr Gly Ser Pro Val Val Ser Glu Glu Pro Leu Asp Leu Leu
                                 25
Pro Thr Leu Asp Leu Arg Gln Glu
        35
<210> 165
<211> 396
<212> PRT
<213> Homo sapiens
```

```
97
 <222> (6)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 <222> (56)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 <222> (67)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 <222> (113)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 <222> (130)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 <222> (137)
 <223> Xaa equals any of the naturally occurring L-amino acids
<220>
 <221> SITE
<222> (139)
<223> Xaa equals any of the naturally occurring L-amino acids
·<220>
<221> SITE
<222> (211)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (222)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (224)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (227)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (280)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 165
```

- Leu Thr Thr Glu Glu Xaa Cys Met Leu Gly Ser Ala Leu Cys Pro Phe 1 5 10 15
- Gln Gly Asń Phe Thr Ile Ile Leu Tyr Gly Arg Ala Asp Glu Gly Ile 20 25 30
- Gln Pro Asp Pro Tyr Tyr Gly Leu Lys Tyr Ile Gly Val Gly Lys Gly 35 40 45
- Gly Ala Leu Glu Leu His Gly Xaa Lys Lys Leu Ser Trp Thr Phe Leu 50 55 60
- Asn Lys Xaa Leu His Pro Gly Gly Met Ala Glu Gly Gly Tyr Phe Phe 65 70 75 80
- Glu Arg Ser Trp Gly His Arg Gly Val Ile Val His Val Ile Asp Pro 85 90 95
- Lys Ser Gly Thr Val Ile His Ser Asp Arg Phe Asp Thr Tyr Arg Ser 100 105 110
- Xaa Lys Glu Ser Glu Arg Leu Val Gln Tyr Leu Asn Ala Val Pro Asp 115 120 125
- Gly Xaa Ile Leu Ser Val Ala Val Xaa Asp Xaa Gly Ser Arg Asn Leu 130 135 140
- Asp Asp Met Ala Arg Lys Ala Met Thr Lys Leu Gly Ser Lys His Phe 145 150 155 160
- Leu His Leu Gly Phe Arg His Pro Trp Ser Phe Leu Thr Val Lys Gly 165 170 175
- Asn Pro Ser Ser Val Glu Asp His Ile Glu Tyr His Gly His Arg 180 185 190
- Gly Ser Ala Ala Ala Arg Val Phe Lys Leu Phe Gln Thr Glu His Gly 195 200 205
- Glu Tyr Xaa Asn Val Ser Leu Ser Ser Glu Trp Val Gln Xaa Val Xaa 210 215 220
- Trp Thr Xaa Trp Phe Asp His Asp Lys Val Ser Gln Thr Lys Gly Gly 225 230 235 240
- Glu Lys Ile Ser Asp Leu Trp Lys Ala His Pro Gly Lys Ile Cys Asn 245 250 255
- Arg Pro Ile Asp Ile Gln Ala Thr Thr Met Asp Gly Val Asn Leu Ser 260 265 270
- Thr Glu Val Val Tyr Lys Lys Xaa Gln Asp Tyr Arg Phe Ala Cys Tyr 275 280 285
- Asp Arg Gly Arg Ala Cys Arg Ser Tyr Arg Val Arg Phe Leu Cys Gly 290 295 300
- Lys Pro Val Arg Pro Lys Leu Thr Val Thr Ile Asp Thr Asn Val Asn 305 310 315 320

```
Ser Thr Ile Leu Asn Leu Glu Asp Asn Val Gln Ser Trp Lys Pro Gly 325 330 335
```

Asp Thr Leu Val Ile Ala Ser Thr Asp Tyr Ser Met Tyr Gln Ala Glu 340 345 350

Glu Phe Gln Val Leu Pro Cys Arg Ser Cys Ala Pro Asn Gln Val Lys 355 360 365

Val Ala Gly Lys Pro Met Tyr Leu His Ile Gly Gly Arg Arg Gly Arg 370 375 380

Glu Ser Arg Val Asp Glu Leu Thr Ser Arg Arg Pro 385 390 395

<210> 166

<211> 44

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 166

Leu Thr Thr Glu Glu Xaa Cys Met Leu Gly Ser Ala Leu Cys Pro Phe 1 5 10 15

Gln Gly Asn Phe Thr Ile Ile Leu Tyr Gly Arg Ala Asp Glu Gly Ile 20 25 30

Gln Pro Asp Pro Tyr Tyr Gly Leu Lys Tyr Ile Gly 35

<210> 167

<211> 42

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (12)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (23)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 167

Val Gly Lys Gly Gly Ala Leu Glu Leu His Gly Xaa Lys Lys Leu Ser

1 10 15

Trp Thr Phe Leu Asn Lys Xaa Leu His Pro Gly Gly Met Ala Glu Gly
20 25 30

```
Gly Tyr Phe Phe Glu Arg Ser Trp Gly His
          35
                              40
 <210> 168
<211> 46
 <212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (27)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (44)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 168
Arg Gly Val Ile Val His Val Ile Asp Pro Lys Ser Gly Thr Val Ile
 1
                                     10
His Ser Asp Arg Phe Asp Thr Tyr Arg Ser Xaa Lys Glu Ser Glu Arg
Leu Val Gln Tyr Leu Asn Ala Val Pro Asp Gly Xaa Ile Leu
                              40
<210> 169
<211> 41
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (5)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (7)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 169
Ser Val Ala Val Xaa Asp Xaa Gly Ser Arg Asn Leu Asp Asp Met Ala
                                     10
Arg Lys Ala Met Thr Lys Leu Gly Ser Lys His Phe Leu His Leu Gly
Phe Arg His Pro Trp Ser Phe Leu Thr
         35
```

<210> 170

<211> 44

```
<212> PRT
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (38)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <400> 170
 Val Lys Gly Asn Pro Ser Ser Ser Val Glu Asp His Ile Glu Tyr His
                                                           15
 Gly His Arg Gly Ser Ala Ala Ala Arg Val Phe Lys Leu Phe Gln Thr
              20
 Glu His Gly Glu Tyr Xaa Asn Val Ser Leu Ser Ser
<210> 171
<211> 43
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (5)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (7)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (10)
<223> Xaa equals any of the naturally occurring L-amino acids
Glu Trp Val Gln Xaa Val Xaa Trp Thr Xaa Trp Phe Asp His Asp Lys
                                     10
Val Ser Gln Thr Lys Gly Glu Lys Ile Ser Asp Leu Trp Lys Ala
                                 25
His Pro Gly Lys Ile Cys Asn Arg Pro Ile Asp
                             40
<210> 172
<211> 43
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (20)
<223> Xaa equals any of the naturally occurring L-amino acids
```

```
<400> 172
```

Ile Gln Ala Thr Thr Met Asp Gly Val Asn Leu Ser Thr Glu Val Val 1 5 10 15

Tyr Lys Lys Xaa Gln Asp Tyr Arg Phe Ala Cys Tyr Asp Arg Gly Arg 20 25 30

Ala Cys Arg Ser Tyr Arg Val Arg Phe Leu Cys 35 40

<210> 173

<211> 45

<212> PRT

<213> Homo sapiens

<400> 173

Gly Lys Pro Val Arg Pro Lys Leu Thr Val Thr Ile Asp Thr Asn Val 1 5 10 15

Asn Ser Thr Ile Leu Asn Leu Glu Asp Asn Val Gln Ser Trp Lys Pro 20 25 30

Gly Asp Thr Leu Val Ile Ala Ser Thr Asp Tyr Ser Met 35 40 45

<210> 174

<211> 48

<212> PRT

<213> Homo sapiens

<400> 174

Tyr Gln Ala Glu Glu Phe Gln Val Leu Pro Cys Arg Ser Cys Ala Pro 1 5 10 15

Asn Gln Val Lys Val Ala Gly Lys Pro Met Tyr Leu His Ile Gly Gly $20 \\ 20 \\ 25 \\ 30$

Arg Arg Gly Arg Glu Ser Arg Val Asp Glu Leu Thr Ser Arg Arg Pro 35 40 45

<210> 175

<211> 24

<212> PRT

<213> Homo sapiens

<400> 175

Gly Thr Arg Asn Gly Trp Val Phe Phe Lys Gln Leu Leu Pro Gln His 1 5 10 15

Phe Asp Ile Arg Tyr Ala Asn Leu

```
<210> 176
 <211> 39
 <212> PRT
 <213> Homo sapiens
 <400> 176
 Gly Glu Val Glu Ala Gly Gln Gly Lys Arg Arg Val Ser Leu Gly Glu
 Ser Thr Leu Gly Pro Pro Cys Arg Gly Thr Pro Ser Thr Leu Arg Pro
              20
                                 25
 Ala Ala Gln Gln Ala Arg Arg
          35
<210> 177
<211> 25
<212> PRT
<213> Homo sapiens
<400> 177
Gln Ser Lys Thr Pro Asp Pro Val Ser Lys Lys Phe Pro Ser Ser
                                     1.0
Gln Gly Val Val Glu Ala Glu Ser Val
             20
<210> 178
<211> 348
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (309)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (341)
<223> Xaa equals any of the naturally occurring L-amino acids
Cys Phe Cys Phe Leu Leu Pro Leu Leu Pro Ser Arg Trp Glu Pro Ser
                                     10
Arg Arg Glu Gly Gly Glu Met Ile Ala Glu Leu Val Ser Ser Ala
                                 25
Leu Gly Leu Ala Leu Tyr Leu Asn Thr Leu Ser Ala Asp Phe Cys Tyr
         35
Asp Asp Ser Arg Ala Ile Lys Thr Asn Gln Asp Leu Leu Pro Glu Thr
                         55
Pro Trp Thr His Ile Phe Tyr Asn Asp Phe Trp Gly Thr Leu Leu Thr
```

n n

ļ.

11

U

U

N

His Ser Gly Ser His Lys Ser Tyr Arg Pro Leu Cys Thr Leu Ser Phe 85 Arg Leu Asn His Ala Ile Gly Gly Leu Asn Pro Trp Ser Tyr His Leu 105 Val Asn Val Leu Leu His Ala Ala Val Thr Gly Leu Phe Thr Ser Phe 115 Ser Lys Ile Leu Leu Gly Asp Gly Tyr Trp Thr Phe Met Ala Gly Leu 130 Met Phe Ala Ser His Pro Ile His Thr Glu Ala Val Ala Gly Ile Val 150 Gly Arg Ala Asp Val Gly Ala Ser Leu Phe Phe Leu Leu Ser Leu Leu 170 Cys Tyr Ile Lys His Cys Ser Thr Arg Gly Tyr Ser Ala Arg Thr Trp 180 Gly Trp Phe Leu Gly Ser Gly Leu Cys Ala Gly Cys Ser Met Leu Trp 200 Lys Glu Gln Gly Val Thr Val Leu Ala Val Ser Ala Val Tyr Asp Val 210 220 Phe Val Phe His Arg Leu Lys Ile Lys Gln Ile Leu Pro Thr Ile Tyr 230 Lys Arg Lys Asn Leu Ser Leu Phe Leu Ser Ile Ser Leu Leu Ile Phe 245 250 Trp Gly Ser Ser Leu Leu Gly Ala Arg Leu Tyr Trp Met Gly Asn Lys 260 265 Pro Pro Ser Phe Ser Asn Ser Asp Asn Pro Ala Ala Asp Ser Asp Ser 280 Leu Leu Thr Arg Thr Leu Thr Phe Phe Tyr Leu Pro Thr Lys Asn Leu 290 Trp Leu Leu Leu Xaa Pro Asp Thr Leu Ser Phe Glu Trp Ser Met Asp 305 310 Ala Val Pro Leu Leu Lys Thr Val Cys Asp Trp Arg Asn Leu His Thr 330 -Val Gly Leu Leu Xaa Trp Asp Ser Phe Ser Leu Ala

345

<210> 179

<211> 43

<212> PRT

<213> Homo sapiens

340

<400> 179

Cys Phe Cys Phe Leu Leu Pro Leu Leu Pro Ser Arg Trp Glu Pro Ser 1 5 10 15

Arg Arg Glu Gly Gly Glu Met Ile Ala Glu Leu Val Ser Ser Ala 20 25 30

Leu Gly Leu Ala Leu Tyr Leu Asn Thr Leu Ser 35 40

<210> 180

<211> 44

<212> PRT

<213> Homo sapiens

<400> 180

Ala Asp Phe Cys Tyr Asp Asp Ser Arg Ala Ile Lys Thr Asn Gln Asp 1 5 10 15

Leu Leu Pro Glu Thr Pro Trp Thr His Ile Phe Tyr Asn Asp Phe Trp 20 25 30

Gly Thr Leu Leu Thr His Ser Gly Ser His Lys Ser 35 40

<210> 181

<211> 43

<212> PRT

<213> Homo sapiens

<400> 181

Tyr Arg Pro Leu Cys Thr Leu Ser Phe Arg Leu Asn His Ala Ile Gly
1 5 10 15

Gly Leu Asn Pro Trp Ser Tyr His Leu Val Asn Val Leu Leu His Ala 20 25 30

Ala Val Thr Gly Leu Phe Thr Ser Phe Ser Lys 35 40

<210> 182

<211> 44

<212> PRT

<213> Homo sapiens

<400> 182

Ile Leu Leu Gly Asp Gly Tyr Trp Thr Phe Met Ala Gly Leu Met Phe

1 5 10 15

Ala Ser His Pro Ile His Thr Glu Ala Val Ala Gly Ile Val Gly Arg
20 25 30

Ala Asp Val Gly Ala Ser Leu Phe Phe Leu Leu Ser 35

<220>

```
106
 <210> 183
 <211> 43
 <212> PRT
 <213> Homo sapiens
 <400> 183
 Leu Leu Cys Tyr Ile Lys His Cys Ser Thr Arg Gly Tyr Ser Ala Arg
 Thr Trp Gly Trp Phe Leu Gly Ser Gly Leu Cys Ala Gly Cys Ser Met
 Leu Trp Lys Glu Gln Gly Val Thr Val Leu Ala
 <210> 184
 <211> 47
 <212> PRT
 <213> Homo sapiens
<400> 184
Val Ser Ala Val Tyr Asp Val Phe Val Phe His Arg Leu Lys Ile Lys
Gln Ile Leu Pro Thr Ile Tyr Lys Arg Lys Asn Leu Ser Leu Phe Leu
Ser Ile Ser Leu Leu Ile Phe Trp Gly Ser Ser Leu Leu Gly Ala
         35
                              40
<210> 185
<211> 43
<212> PRT
<213> Homo sapiens
<400> 185
Arg Leu Tyr Trp Met Gly Asn Lys Pro Pro Ser Phe Ser Asn Ser Asp
Asn Pro Ala Ala Asp Ser Asp Ser Leu Leu Thr Arg Thr Leu Thr Phe
             20
                                 25
Phe Tyr Leu Pro Thr Lys Asn Leu Trp Leu Leu
         35
<210> 186
<211> 41
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (2)
<223> Xaa equals any of the naturally occurring L-amino acids
```

```
<221> SITE
 <222> (34)
 <223> Xaa equals any of the naturally occurring L-amino acids
 Leu Xaa Pro Asp Thr Leu Ser Phe Glu Trp Ser Met Asp Ala Val Pro
 Leu Leu Lys Thr Val Cys Asp Trp Arg Asn Leu His Thr Val Gly Leu
                                  25
Leu Xaa Trp Asp Ser Phe Ser Leu Ala
        35
<210> 187
<211> 24
<212> PRT
<213> Homo sapiens
<400> 187
His Asn Val Phe Lys Val Tyr Ser Cys Cys Ser Lys Val Arg Asn Cys
                                     10
Phe Ser Phe Lys Glu Lys Val Ser
<210> 188
<211> 11
<212> PRT
<213> Homo sapiens
<400> 188
Asn Cys Met His Gly Lys Ile Thr Pro Phe Gln
                5
<210> 189
<211> 40
<212> PRT
<213> Homo sapiens
<400> 189
Glu Gln Ile Pro Lys Lys Val Gln Lys Ser Leu Gln Glu Thr Ile Gln
                                     10
Ser Leu Lys Leu Thr Asn Gln Glu Leu Leu Arg Lys Gly Ser Ser Asn
Asn Gln Asp Val Val Ser Cys Asp
         35
<210> 190
<211> 219
<212> PRT
<213> Homo sapiens
```

<400> 190

Glu Gln Ile Pro Lys Lys Val Gln Lys Ser Leu Gln Glu Thr Ile Gln 1 5 10 15

Ser Leu Lys Leu Thr Asn Gln Glu Leu Leu Arg Lys Gly Ser Ser Asn 20 25 30

Asn Gln Asp Val Val Ser Cys Asp Met Ala Cys Lys Gly Leu Leu Gln 35 40 45

Gln Val Gln Gly Pro Arg Leu Pro Trp Thr Arg Leu Leu Leu Leu 50 55 60

Leu Val Phe Ala Val Gly Phe Leu Cys His Asp Leu Arg Ser His Ser 65 70 75 80

Ser Phe Gln Ala Ser Leu Thr Gly Arg Leu Leu Arg Ser Ser Gly Phe 85 90 95

Leu Pro Ala Ser Gln Gln Ala Cys Ala Lys Leu Tyr Ser Tyr Ser Leu 100 105 110

Gln Gly Tyr Ser Trp Leu Gly Glu Thr Leu Pro Leu Trp Gly Ser His
115 120 125

Leu Leu Thr Val Val Arg Pro Ser Leu Gln Leu Ala Trp Ala His Thr 130 135 140

Asn Ala Thr Val Ser Phe Leu Ser Ala His Cys Ala Ser His Leu Ala 145 150 155 160

Trp Phe Gly Asp Ser Leu Thr Ser Leu Ser Gln Arg Leu Gln Ile Gln 165 170 175

Leu Pro Asp Ser Val Asn Gln Leu Leu Arg Tyr Leu Arg Glu Leu Pro 180 185 190

Leu Leu Phe His Gln Asn Val Leu Leu Pro Leu Trp His Leu Leu Leu 195 200 205

Glu Ala Leu Ala Trp Ala Gln Gly Ala Leu Pro 210 215

<210> 191

<211> 23

<212> PRT

<213> Homo sapiens

<400> 191

Gly Thr Ser Phe Cys Ser His Leu Pro Ser Gln Arg Pro Leu His Leu 1 5 10 15

Ser Gly Ser Ser Cys Leu Val

20

<210> 192

<211> 69

```
<212> PRT
```

<213> Homo sapiens

<400> 192 .

Gly Thr Ser Phe Cys Ser His Leu Pro Ser Gln Arg Pro Leu His Leu 1 5 10 15

Ser Gly Ser Ser Cys Leu Val Met Val Trp Phe Ile Tyr Phe Val Leu 20 25 30

Gln Gly Leu Phe Cys Pro Lys Asn Glu Gly Ala Ser Pro Gly Leu Gln 35 40 45

Phe Pro Thr Leu Ser Leu Ala Gly His Ala Ser Pro Ala Leu Val Pro 50 55 60

His Gly Met Gly Gly 65

<210> 193

<211> 58

<212> PRT

<213> Homo sapiens

<400> 193

Phe Cys Ile Gln Val Pro Gly Phe Val Ser Cys Trp Tyr Ala Ser Pro 1 5 10 15

Asp Arg Pro Ser Cys Ile His Val Thr Arg Leu Tyr Leu Leu Gly Leu 20 25 30

Ser Gln Ile Leu Ala Ser Tyr Ser Ser Ser Cys Pro Asn Ser Ile Leu 35 40 45

Ser Leu Arg Asn Gly Gly Lys Ile Leu Arg 50 55

<210> 194

<211> 100

<212> PRT

<213> Homo sapiens

<400> 194

Phe Cys Ile Gln Val Pro Gly Phe Val Ser Cys Trp Tyr Ala Ser Pro 1 5 10 15

Asp Arg Pro Ser Cys Ile His Val Thr Arg Leu Tyr Leu Leu Gly Leu 20 25 30

Ser Gln Ile Leu Ala Ser Tyr Ser Ser Ser Cys Pro Asn Ser Ile Leu 35 40 45

Ser Leu Arg Asn Gly Gly Lys Ile Leu Arg Met Phe Leu Val Phe Trp 50 55 60

Leu Leu Gly Ile Tyr Phe Cys His Leu Leu Val Ile Thr Val Leu Thr 65 70 75 80

Lys Trp Ile Leu Ala Pro Pro Tyr Leu Met Ala Gln Thr Thr Thr Pro
85 90 95

Gln Ser Leu Tyr 100

<210> 195

<211> 40

<212> PRT

<213> Homo sapiens

<400> 195

Pro Arg Val Arg Ser Ala Ala Arg Leu Pro Arg Thr Leu Arg Pro Ser 1 5 . 10 15

Arg Thr Ser Ala Pro Ala Gly Pro Cys Val Pro Arg Leu Ala Pro Leu 20 25 30

Thr Pro Ser Arg Pro Gly Arg Ala 35 40

<210> 196

<211> 251

<212> PRT

<213> Homo sapiens

<400> 196

Pro Arg Val Arg Ser Ala Ala Arg Leu Pro Arg Thr Leu Arg Pro Ser 1 5 10 15

Arg Thr Ser Ala Pro Ala Gly Pro Cys Val Pro Arg Leu Ala Pro Leu 20 25 30

Thr Pro Ser Arg Pro Gly Arg Ala Met Ile Ser Leu Pro Gly Pro Leu 35 40 45

Val Thr Asn Leu Leu Arg Phe Leu Phe Leu Gly Leu Ser Ala Leu Asp 50 55 60

Val Ile Arg Gly Ser Leu Ser Leu Thr Asn Leu Ser Ser Met Ala 65 70 75 80

Gly Val Tyr Val Cys Lys Ala His Asn Glu Val Gly Thr Ala Gln Cys 85 90 95

Asn Val Thr Leu Glu Val Ser Thr Gly Pro Gly Ala Ala Val Val Ala 100 105 110

Gly Ala Val Val Gly Thr Leu Val Gly Leu Gly Leu Leu Ala Gly Leu 115 120 125

Val Leu Leu Tyr His Arg Arg Gly Lys Ala Leu Glu Glu Pro Ala Asn 130 135 140

Asp Ile Lys Glu Asp Ala Ile Ala Pro Arg Thr Leu Pro Trp Pro Lys 145 150 155 160 Ser Ser Asp Thr Ile Ser Lys Asn Gly Thr Leu Ser Ser Val Thr Ser . 165 170 175

Ala Arg Ala Leu Arg Pro Pro His Gly Pro Pro Arg Pro Gly Ala Leu 180 185 190

Thr Pro Thr Pro Ser Leu Ser Ser Gln Ala Leu Pro Ser Pro Arg Leu 195 200 205

Pro Thr Thr Asp Gly Ala His Pro Gln Pro Ile Ser Pro Ile Pro Gly 210 215 220

Gly Val Ser Ser Ser Gly Leu Ser Arg Met Gly Ala Val Pro Val Met 225 230 235 240

Val Pro Ala Gln Ser Gln Ala Gly Ser Leu Val 245 250

<210> 197

<211> 460

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (236)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (324)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 197

Ser Val Leu Trp Gly Gly Ser Lys Gly Pro Trp Ser Trp Pro Arg Pro 1 5 10 15

Arg His Arg Glu Arg Leu Asp Phe Leu Ser Leu Cys Ala Glu Trp Leu 20 25 30

Arg Trp Arg Pro Leu Ser Leu Thr Gln Gln Leu Lys His Thr Ile Ser 35 40 45

Gly Ser Asn Trp Leu Pro His Pro Leu Pro Cys Pro Leu Gly Ser Ala 50 55 60

Glu Asn Asn Gly Asn Ala Asn Ile Leu Ile Ala Ala Asn Gly Thr Lys
65 70 75 80

Arg Lys Ala Ile Ala Ala Glu Asp Pro Ser Leu Asp Phe Arg Asn Asn 90 95

Pro Thr Lys Glu Asp Leu Gly Lys Leu Gln Pro Leu Val Ala Ser Tyr
100 105 110

Leu Cys Ser Asp Val Thr Ser Val Pro Ser Lys Glu Ser Leu Lys Leu 115 120 125

- Gln Gly Val Phe Ser Lys Gln Thr Val Leu Lys Ser His Pro Leu Leu 130 . 135 140
- Leu Glu Phe Ser Leu Glu Asn Leu Arg Thr Met Asn Thr Ser Gly Gln
 165 170 175
- Thr Ala Leu Pro Gln Ala Pro Val Asn Gly Leu Ala Lys Lys Leu Thr 180 185 190
- Lys Ser Ser Thr His Ser Asp His Asp Asn Ser Thr Ser Leu Asn Gly
 195 200 205
- Gly Lys Arg Ala Leu Thr Ser Ser Ala Leu His Gly Gly Glu Met Gly 210 215 220
- Gly Ser Glu Ser Gly Asp Leu Lys Gly Gly Met Xaa Asn Cys Thr Leu 225 230 235 240
- Pro His Arg Ser Leu Asp Val Glu His Thr Ile Leu Tyr Ser Asn Asn 245 250 255
- Ser Thr Ala Asn Lys Ser Ser Val Asn Ser Met Glu Gln Pro Ala Leu 260 265 270
- Gln Gly Ser Ser Arg Leu Ser Pro Gly Thr Asp Ser Ser Ser Asn Leu 275 280 285
- Gly Gly Val Lys Leu Glu Gly Lys Lys Ser Pro Leu Ser Ser Ile Leu 290 295 300
- Phe Ser Ala Leu Asp Ser Asp Thr Arg Ile Thr Ala Leu Leu Arg Arg 305 310 315 320
- Gln Ala Asp Xaa Glu Ser Arg Ala Arg Arg Leu Gln Lys Arg Leu Gln 325 330 335
- Val Val Gln Ala Lys Gln Val Glu Arg His Ile Gln His Gln Leu Gly
 340 345 350
- Gly Phe Leu Glu Lys Thr Leu Ser Lys Leu Pro Asn Leu Glu Ser Leu 355 360 365
- Arg Pro Arg Ser Gln Leu Met Leu Thr Arg Lys Ala Glu Ala Ala Leu 370 375 380
- Arg Lys Ala Ala Ser Glu Thr Thr Thr Ser Glu Gly Leu Ser Asn Phe 385 390 395 400
- Leu Lys Ser Asn Ser Ile Ser Glu Glu Leu Glu Arg Phe Thr Ala Ser 405 410 415
- Gly Ile Ala Asn Leu Arg Cys Ser Glu Gln Ala Phe Asp Ser Asp Val 420 425 430
- Thr Asp Ser Ser Gly Gly Glu Ser Asp Ile Glu Glu Glu Leu

Thr Arg Ala Asp Pro Glu Gln Arg His Val Pro Leu 450 455 460

<210> 198

<211> 43

<212> PRT

<213> Homo sapiens

<400> 198

Ser Val Leu Trp Gly Gly Ser Lys Gly Pro Trp Ser Trp Pro Arg Pro 1 5 10 15

440

Arg His Arg Glu Arg Leu Asp Phe Leu Ser Leu Cys Ala Glu Trp Leu 20 25 30

Arg Trp Arg Pro Leu Ser Leu Thr Gln Gln Leu 35

<210> 199

<211> 45

<212> PRT

<213> Homo sapiens

<400> 199

Lys His Thr Ile Ser Gly Ser Asn Trp Leu Pro His Pro Leu Pro Cys

1 5 10 15

Pro Leu Gly Ser Ala Glu Asn Asn Gly Asn Ala Asn Ile Leu Ile Ala 20 25 30

Ala Asn Gly Thr Lys Arg Lys Ala Ile Ala Ala Glu Asp 35 40 45

<210> 200

<211> 45

<212> PRT

<213> Homo sapiens

<400> 200

Pro Ser Leu Asp Phe Arg Asn Asn Pro Thr Lys Glu Asp Leu Gly Lys
1 5 10 15

Leu Gln Pro Leu Val Ala Ser Tyr Leu Cys Ser Asp Val Thr Ser Val

Pro Ser Lys Glu Ser Leu Lys Leu Gln Gly Val Phe Ser 35 40 45

<210> 201

<211> 46

<212> PRT

<213> Homo sapiens

```
114
 <400> 201
 Lys Gln Thr Val Leu Lys Ser His Pro Leu Leu Ser Gln Ser Tyr Glu
                                      10
 Leu Arg Ala Glu Leu Leu Gly Arg Gln Pro Val Leu Glu Phe Ser Leu
                                  25
 Glu Asn Leu Arg Thr Met Asn Thr Ser Gly Gln Thr Ala Leu
 <210> 202
 <211> 44
 <212> PRT
 <213> Homo sapiens
<400> 202
Pro Gln Ala Pro Val Asn Gly Leu Ala Lys Lys Leu Thr Lys Ser Ser
                                     10
Thr His Ser Asp His Asp Asn Ser Thr Ser Leu Asn Gly Gly Lys Arg
             20
Ala Leu Thr Ser Ser Ala Leu His Gly Gly Glu Met
<210> 203
<211> 45
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (13)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 203
Gly Gly Ser Glu Ser Gly Asp Leu Lys Gly Gly Met Xaa Asn Cys Thr
Leu Pro His Arg Ser Leu Asp Val Glu His Thr Ile Leu Tyr Ser Asn
             20
                                 25
                                                     3.0
Asn Ser Thr Ala Asn Lys Ser Ser Val Asn Ser Met Glu
         35
                             40
<210> .204
<211> 47
<212> PRT
<213> Homo sapiens
```

Gln Pro Ala Leu Gln Gly Ser Ser Arg Leu Ser Pro Gly Thr Asp Ser

Ser Ser Asn Leu Gly Gly Val Lys Leu Glu Gly Lys Lys Ser Pro Leu 25 30

Ser Ser Ile Leu Phe Ser Ala Leu Asp Ser Asp Thr Arg Ile Thr 35, 40 45

<210> 205
<211> 47
<212> PRT

<213> Homo sapiens <220>

<221> SITE <222> (9)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 205

Ala Leu Leu Arg Arg Gln Ala Asp Xaa Glu Ser Arg Ala Arg Arg Leu 1 5 10 15

Gln Lys Arg Leu Gln Val Val Gln Ala Lys Gln Val Glu Arg His Ile 20 25 30

Gln His Gln Leu Gly Gly Phe Leu Glu Lys Thr Leu Ser Lys Leu 35 40 45

<210> 206 <211> 47 <212> PRT <213> Homo sapiens

<400> 206

Pro Asn Leu Glu Ser Leu Arg Pro Arg Ser Gln Leu Met Leu Thr Arg 1 5 10 15

Lys Ala Glu Ala Ala Leu Arg Lys Ala Ala Ser Glu Thr Thr Thr Ser 20 25 30

Glu Gly Leu Ser Asn Phe Leu Lys Ser Asn Ser Ile Ser Glu Glu 35 40 45

<210> 207 <211> 51 <212> PRT <213> Homo sapiens

Gln Ala Phe Asp Ser Asp Val Thr Asp Ser Ser Ser Gly Gly Glu Ser 20 25 30

Asp Ile Glu Glu Glu Leu Thr Arg Ala Asp Pro Glu Gln Arg His
35 40 45

Val Pro Leu

```
<210> 208
 <211> 86
 <212> PRT
 <213> Homo sapiens
<400> 208
Asn Asn Cys Gly Thr Val Ser Ser Arg Val Phe Ser Phe Trp Arg Gln
                                      10
Phe Arg Gln Gln Pro Gln Val Val Leu Leu Leu Lys Ile Tyr Met Phe
                                  25
Leu Lys Val Leu Val Phe Leu Ile Phe Phe Ser Pro Phe Ser Ser Ser
                             40
                                                 45
Leu Phe Ser Gly Glu Ala Val Arg Gly Arg Gly Ala Gly Leu Gly Leu
                         55
Gly Ile Gly Arg Gly Trp Thr Ser Cys Leu Ser Val Leu Asn Gly Cys
                                         75
Asp Gly Ala Arg Ser His
                 85
<210> 209
<211> 16
<212> PRT
<213> Homo sapiens
<400> 209
Ala Lys Val Val Ser Trp Pro Ser Gln Glu Thr Cys Gly Ile Arg Thr
                                    10
<210> 210
<211> 72
<212> PRT
<213> Homo sapiens
<400> 210
Ala Lys Val Val Ser Trp Pro Ser Gln Glu Thr Cys Gly Ile Arg Thr
                5
                                    10
```

Gln Gly Cys Trp Tyr Gln Pro Glu Pro Tyr Arg Trp Gln Ser Leu Glu 50

Met Lys Ala Met Leu Gln Cys Phe Arg Phe Tyr Phe Met Arg Leu Phe 25

Val Phe Leu Leu Thr Ser Gly Lys Met Ile Asp Ser Asp Ser Thr Met 40

45

Lys Trp Ser Gln Lys Met Glu Leu

```
<210> 211
```

<211> 26

<212> PRT

<213> Homo sapiens

<400> 211

Leu Pro Ser Gly Thr Phe Leu Lys Arg Ser Phe Arg Ser Leu Pro Glu

Leu Lys Asp Ala Val Leu Asp Gln Tyr Ser 20

<210> 212

<211> 298

<212> PRT

<213> Homo sapiens

<400> 212

Leu Pro Ser Gly Thr Phe Leu Lys Arg Ser Phe Arg Ser Leu Pro Glu 5

Leu Lys Asp Ala Val Leu Asp Gln Tyr Ser Met Trp Gly Asn Lys Phe

Gly Val Leu Leu Phe Leu Tyr Ser Val Leu Leu Thr Lys Gly Ile Glu 40

Asn Ile Lys Asn Glu Ile Glu Asp Ala Ser Glu Pro Leu Ile Asp Pro

Val Tyr Gly His Gly Ser Gln Ser Leu Ile Asn Leu Leu Thr Gly

His Ala Val Ser Asn Val Trp Asp Gly Asp Arg Glu Cys Ser Gly Met 85 90

Lys Leu Leu Gly Ile His Glu Gln Ala Ala Val Gly Phe Leu Thr Leu 100 105

Met Glu Ala Leu Arg Tyr Cys Lys Val Gly Ser Tyr Leu Lys Ser Pro 120 125

Lys Phe Pro Ile Trp Ile Val Gly Ser Glu Thr His Leu Thr Val Phe 130 135

Phe Ala Lys Asp Met Ala Leu Val Ala Pro Glu Ala Pro Ser Glu Gln 150

Ala Arg Arg Val Phe Gln Thr Tyr Asp Pro Glu Asp Asn Gly Phe Ile 165 170

Pro Asp Ser Leu Leu Glu Asp Val Met Lys Ala Leu Asp Leu Val Ser 185

Asp Pro Glu Tyr Ile Asn Leu Met Lys Asn Lys Leu Asp Pro Glu Gly

118

Leu Gly Ile Ile Leu Leu Gly Pro Phe Leu Gln Glu Phe Phe Pro Asp 210 215 220

Gln Gly Ser Ser Gly Pro Glu Ser Phe Thr Val Tyr His Tyr Asn Gly 225 230 235

Leu Lys Gln Ser Asn Tyr Asn Glu Lys Val Met Tyr Val Glu Gly Thr 245 250 255

Ala Val Val Met Gly Phe Glu Asp Pro Met Leu Gln Thr Asp Asp Thr 260 265 270

Pro Ile Lys Arg Cys Leu Gln Thr Lys Trp Pro Tyr Ile Glu Leu Leu 275 280 285

Trp Thr Thr Asp Arg Ser Pro Ser Leu Asn 290 295

<210> 213

<211> 21

<212> PRT

<213> Homo sapiens

<400> 213

Gly Thr Arg Arg Ala Glu Val Gly Ala Ala Thr Ala Leu Pro Val Arg 1 5 10 15

Trp Ala Ser Gly Glu 20

<210> 214

<211> 301

<212> PRT

<213> Homo sapiens

<400> 214

Gly Thr Arg Arg Ala Glu Val Gly Ala Ala Thr Ala Leu Pro Val Arg 1 5 10 15

Trp Ala Ser Gly Glu Met Ala Pro Ser Gly Ser Leu Ala Val Pro Leu 20 25 30

Ala Val Leu Val Leu Leu Trp Gly Ala Pro Trp Thr His Gly Arg 35 40 45

Arg Ser Asn Val Arg Val Ile Thr Asp Glu Asn Trp Arg Glu Leu Leu 50 55 60

Glu Gly Asp Trp Met Ile Glu Phe Tyr Ala Pro Trp Cys Pro Ala Cys 65 70 75 80

Gln Asn Leu Gln Pro Glu Trp Glu Ser Phe Ala Glu Trp Gly Glu Asp
85 90 95

Leu Glu Val Asn Ile Ala Lys Val Asp Val Thr Glu Gln Pro Gly Leu

O)

m m

100

105

119

110

Ser Gly Arg Phe Ile Ile Thr Ala Leu Pro Thr Ile Tyr His Cys Lys 115 120 125

Asp Gly Glu Phe Arg Arg Tyr Gln Gly Pro Arg Thr Lys Lys Asp Phe 130 135 140

Ile Asn Phe Ile Ser Asp Lys Glu Trp Lys Ser Ile Glu Pro Val Ser 145 150 155 160

Ser Trp Phe Gly Pro Gly Ser Val Leu Met Ser Ser Met Ser Ala Leu 165 170 175

Phe Gln Leu Ser Met Trp Ile Arg Thr Cys His Asn Tyr Phe Ile Glu 180 185 190

Asp Leu Gly Leu Pro Val Trp Gly Ser Tyr Thr Val Phe Ala Leu Ala 195 200 205

Thr Leu Phe Ser Gly Leu Leu Leu Gly Leu Cys Met Ile Phe Val Ala 210 215 220

Asp Cys Leu Cys Pro Ser Lys Arg Arg Pro Gln Pro Tyr Pro Tyr 225 230 235 240

Pro Ser Lys Lys Leu Leu Ser Glu Ser Ala Gln Pro Leu Lys Lys Val 245 250 255

Glu Glu Glu Glu Ala Asp Glu Glu Asp Val Ser Glu Glu Glu Ala 260 265 270

Glu Ser Lys Glu Gly Thr Asn Lys Asp Phe Pro Gln Asn Ala Ile Arg 275 280 285

Gln Arg Ser Leu Gly Pro Ser Leu Ala Thr Asp Lys Ser 290 295 300

<210> 215

<211> 48

<212> PRT

<213> Homo sapiens

<400> 215

Val Thr Gly Thr Gly Glu Glu Leu Asn Ser Asn Ser Ser Leu Trp Glu
1 5 10 15

Asn Ala Val Leu Ala Pro Pro Gly Val Ala Leu Ala Gly Cys Trp Ser 20 25 30

Pro Arg Ser Ala Pro Ser Gly Leu Trp Gly Gln Gly Trp Val Ser Leu 35 40 45

<400> 218

```
120
 <211> 28
 <212> PRT
 <213> Homo, sapiens
 <400> 216
 Ser Asn Ser Ser Leu Trp Glu Asn Ala Val Leu Ala Pro Pro Gly Val
 Ala Leu Ala Gly Cys Trp Ser Pro Arg Ser Ala Pro
              20
<210> 217
<211> 134
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (56)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 217
Ile Pro Phe Gln Pro Met Ser Gly Arg Phe Lys Asp Arg Val Ser Trp
Asp Gly Asn Pro Glu Arg Tyr Asp Ala Ser Ile Leu Leu Trp Lys Leu
                                  25
Gln Phe Asp Asp Asn Gly Thr Tyr Thr Cys Gln Val Lys Asn Pro Pro
Asp Val Asp Gly Val Ile Gly Xaa Ile Arg Leu Ser Val Val His Thr
                          55
Val Arg Phe Ser Glu Ile His Phe Leu Ala Leu Ala Ile Gly Ser Ala
 65
                     70
                                          75
Cys Ala Leu Met Ile Ile Ile Val Ile Val Val Val Leu Phe Gln His
Tyr Arg Lys Lys Arg Trp Ala Glu Arg Ala His Lys Val Val Glu Ile
                                 105
Lys Ser Lys Glu Glu Glu Arg Leu Asn Gln Glu Lys Lys Val Ser Val
        115
                            120
Tyr Leu Glu Asp Thr Asp
    130
<210> 218
<211> 29
<212> PRT
<213> Homo sapiens
```

Arg Val Ser Trp Asp Gly Asn Pro Glu Arg Tyr Asp Ala Ser Ile Leu

10

```
Leu Trp Lys Leu Gln Phe Asp Asp Asn Gly Thr Tyr Thr
             20
<210> 219
<211> 24
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (9)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 219
Pro Asp Val Asp Gly Val Ile Gly Xaa Ile Arg Leu Ser Val Val His
                                     10
Thr Val Arg Phe Ser Glu Ile His
             20
<210> 220
<211> 28
<212> PRT
<213> Homo sapiens
<400> 220
Met Ile Ile Ile Val Ile Val Val Val Leu Phe Gln His Tyr Arg Lys
                                     10.
Lys Arg Trp Ala Glu Arg Ala His Lys Val Val Glu
<210> 221
<211> 91
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (84)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 221
Met Tyr Gly Lys Ser Ser Thr Arg Ala Val Leu Leu Leu Gly Ile
                                     10 -
Gln Leu Thr Ala Leu Trp Pro Ile Ala Ala Val Glu Ile Tyr Thr Ser
             20
                                 25
Arg Val Leu Glu Ala Val Asn Gly Thr Asp Ala Arg Leu Lys Cys Thr
Phe Ser Ser Phe Ala Pro Val Gly Asp Ala Leu Thr Val Thr Trp Asn
```

55

Phe Arg Pro Leu Asp Gly Gly Pro Glu Gln Phe Val Phe Tyr Tyr His 65 70 75 80

Ile Asp Pró Xaa Pro Thr His Glu Trp Ala Val 85 90

<210> 222

<211> 250

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (118)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (176)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 222

Gly Thr Arg Asn Ala Val Leu Ala Pro Pro Gly Val Ala Leu Ala Gly
1 5 10 15

Cys Trp Ser Pro Arg Ser Ala Pro Ser Gly Leu Trp Gly Gln Gly Trp 20 25 30

Val Ser Leu Met Tyr Gly Lys Ser Ser Thr Arg Ala Val Leu Leu Leu 35 40 45

Leu Gly Ile Gln Leu Thr Ala Leu Trp Pro Ile Ala Ala Val Glu Ile 50 55 60

Tyr Thr Ser Arg Val Leu Glu Ala Val Asn Gly Thr Asp Ala Arg Leu 65 70 75 80

Lys Cys Thr Phe Ser Ser Phe Ala Pro Val Gly Asp Ala Leu Thr Val 85 90 95

Thr Trp Asn Phe Arg Pro Leu Asp Gly Gly Pro Glu Gln Phe Val Phe 100 105 110

Tyr Tyr His Ile Asp Xaa Phe Gln Pro Met Ser Gly Arg Phe Lys Asp 115 120 125

Arg Val Ser Trp Asp Gly Asn Pro Glu Arg Tyr Asp Ala Ser Ile Leu 130 135 140

Leu Trp Lys Leu Gln Phe Asp Asp Asn Gly Thr Tyr Thr Cys Gln Val 145 150 155 160

Lys Asn Pro Pro Asp Val Asp Gly Val Ile Gly Asp Ile Arg Leu Xaa 165 170 175

Val Val His Thr Val Arg Phe Ser Glu Ile His Phe Leu Ala Leu Ala 180 185 190

```
Ile Gly Ser Ala Cys Ala Leu Met Ile Ile Ile Val Ile Val Val Val
          195
                              200
                                                 205
  Leu Phe Glń His Tyr Arg Lys Lys Arg Trp Ala Glu Arg Ala His Lys
                          215
  Val Val Glu Ile Lys Ser Lys Glu Glu Glu Arg Leu Asn Gln Glu Lys
                      230
                                         235
  Lys Val Ser Val Tyr Leu Glu Asp Thr Asp
                  245
  <210> 223
  <211> 7
  <212> PRT
 <213> Homo sapiens
 <400> 223
 Pro Ala Arg Gly Ala Pro Arg
 <210> 224
 <211> 6
 <212> PRT
<213> Homo sapiens
 <400> 224
 Ala Arg Val Tyr Phe Lys
                  5
 <210> 225
 <211> 7
 <212> PRT
 <213> Homo sapiens
 <400> 225
 Thr Lys Leu Phe His Asp Lys
  1
 <210> 226
 <211> 161
  <212> PRT
 <213> Homo sapiens
<400> 226
  Pro His Ile His Pro Cys Trp Lys Glu Gly Asp Thr Val Gly Phe Leu
                                     10
 Leu Asp Leu Asn Glu Lys Gln Met Ile Phe Phe Leu Asn Gly Asn Gln
              20
                                  25
```

Leu Pro Pro Glu Lys Gln Val Phe Ser Ser Thr Val Ser Gly Phe Phe

Ala Ala Ser Phe Met Ser Tyr Gln Gln Cys Glu Phe Asn Phe Gly

L

<u>l</u>a <u>U</u>1

L.

T.

<u>L</u>ā

60

55 Ala Lys Pro Phe Lys Tyr Pro Pro Ser Met Lys Phe Ser Thr Phe Asn 70 75 Asp Tyr Ala Phe Leu Thr Ala Glu Glu Lys Ile Ile Leu Pro Arg His Arg Arg Leu Ala Leu Leu Lys Gln Val Ser Ile Arg Glu Asn Cys Cys 105 Ser Leu Cys Cys Asp Glu Val Ala Asp Thr Gln Leu Lys Pro Cys Gly 115 120 His Ser Asp Leu Cys Met Asp Cys Ala Leu Gln Leu Glu Thr Cys Pro 135 130 Leu Cys Arg Lys Glu Ile Val Ser Arg Ile Arg Gln Ile Ser His Ile 150 155 Ser <210> 227 <211> 31 <212> PRT <213> Homo sapiens <400> 227 Asn Glu Lys Gln Met Ile Phe Phe Leu Asn Gly Asn Gln Leu Pro Pro Glu Lys Gln Val Phe Ser Ser Thr Val Ser Gly Phe Phe Ala Ala 20 25 <210> 228 <211> 27 <212> PRT <213> Homo sapiens <400> 228 Ser Tyr Gln Gln Cys Glu Phe Asn Phe Gly Ala Lys Pro Phe Lys Tyr Pro Pro Ser Met Lys Phe Ser Thr Phe Asn Asp 20 <210> 229 <211> 29 <212> PRT

<400> 229

<213> Homo sapiens

Glu Glu Lys Ile Ile Leu Pro Arg His Arg Arg Leu Ala Leu Leu Lys 10

<210> 235 <211> 8

```
125
 Gln Val Ser Ile Arg Glu Asn Cys Cys Ser Leu Cys Cys
 <210> 230
 <211> 30
 <212> PRT
 <213> Homo sapiens
 <400> 230
 Thr Gln Leu Lys Pro Cys Gly His Ser Asp Leu Cys Met Asp Cys Ala
Leu Gln Leu Glu Thr Cys Pro Leu Cys Arg Lys Glu Ile Val
<210> 231
<211> 8
<212> PRT
<213> Homo sapiens
<400> 231
Ala Leu Glu Lys Phe Ala Gln Thr
 1
                 5
<210> 232
<211> 6
<212> PRT
<213> Homo sapiens
<400> 232
Gly Phe Cys Ala Gln Trp
<210> 233
<211> 8
<212> PRT
<213> Homo sapiens
<400> 233
Asp Val Ser Glu Tyr Leu Lys Ile
1 5
<210> 234
<211> 7
<212> PRT
<213> Homo sapiens
<400> 234
Gly Leu Glu Ala Arg Cys Asp
```

```
<212> PRT
   <213> Homo sapiens
   <400> 235 ´
   Phe Glu Ser Val Arg Cys Thr Phe
   <210> 236
   <211> 6
   <212> PRT
   <213> Homo sapiens
   <400> 236
   Gly Val Trp Tyr Tyr Glu
   <210> 237
   <211> 8
   <212> PRT
   <213> Homo sapiens
   <400> 237
   Thr Ser Gly Val Met Gln Ile Gly
                    5
   <210> 238
   <211> 12
   <212> PRT
   <213> Homo sapiens
   <400> 238
   Phe Leu Asn His Glu Gly Tyr Gly Ile Gly Asp Asp
    1 5
   <210> 239
   <211> 7
   <212> PRT
   <213> Homo sapiens
   <400> 239
   Ala Tyr Asp Gly Cys Arg Gln
- <210> 240
   <211> 15
   <212> PRT
   <213> Homo sapiens
   <400> 240
   His Ala Ser Ala Asp Gly Gly Arg Thr Arg Gly Trp Thr Pro Thr
                  5
                                       10
```

<211> 337

<212> PRT

<213> Homo sapiens

<400> 241

His Ala Ser Ala Asp Gly Gly Arg Thr Arg Gly Trp Thr Pro Thr Met

1 5 10 15

Pro Pro Arg Gly Pro Ala Ser Glu Leu Leu Leu Leu Arg Leu Leu Leu 20 25 30

Leu Gly Ala Ala Thr Ala Ala Pro Leu Ala Pro Arg Pro Ser Lys Glu 35 40 45

Glu Leu Thr Arg Cys Leu Ala Glu Val Val Thr Glu Val Leu Thr Val
50 60

Gly Gln Val Gln Arg Gly Pro Cys Thr Ala Leu Leu His Lys Glu Leu 65 70 75 80

Cys Gly Thr Glu Pro His Gly Cys Ala Ser Thr Glu Glu Lys Gly Leu 85 90 95

Leu Leu Gly Asp Phe Lys Lys Gln Glu Ala Gly Lys Met Arg Ser Ser 100 105 110

Gln Glu Val Arg Asp Glu Glu Glu Glu Glu Val Ala Glu Arg Thr His 115 120 125

Lys Ser Glu Val Gln Glu Gln Ala Ile Arg Met Gln Gly His Arg Gln 130 135 . 140

Leu His Gln Glu Glu Asp Glu Glu Glu Glu Lys Glu Glu Arg Lys Arg 145 150 155 160

Gly Pro Met Glu Thr Phe Glu Asp Leu Trp Gln Arg His Leu Glu Asn 165 170 175

Gly Gly Asp Leu Gln Lys Arg Val Ala Glu Lys Ala Ser Asp Lys Glu 180 185 190

Thr Ala Gln Phe Gln Ala Glu Glu Lys Gly Val Arg Val Leu Gly Gly 195 200 205

Asp Arg Ser Leu Trp Gln Gly Ala Glu Arg Gly Gly Glu Arg Arg 210 215 220

Glu Asp Leu Pro His His His His His His Gln Pro Glu Ala Glu 225 230 235 240

Pro Arg Gln Glu Lys Glu Glu Ala Ser Glu Arg Glu Val Ser Arg Gly 245 250 255

Met Lys Glu Glu His Gln His Ser Leu Glu Ala Gly Leu Met Wal 260 265 270

Ser Gly Val Thr Thr His Ser His Arg Cys Trp Pro Cys Thr Thr Arg 275 280 285

Ser Ile Thr Ser Gly Ser Gln Trp Pro Arg Leu Thr Pro Arg Leu Ala 290 295 300

Asn Asn Phe Arg Ala Arg Pro Leu Pro Tyr Thr Ser Thr Leu Leu Tyr 305 310 315 320

Gly Leu Gln Gln Pro Arg Trp His His Cys Thr Glu Ala Ser His His 325 330 335

His

<210> 242

<211> 23

<212> PRT

<213> Homo sapiens

<400> 242

Ala Phe Asp Glu Gly Asn Lys Met Glu Leu Arg Lys Asn Thr Ile Leu 1 5 10 15

Ile Ile Tyr Tyr Ile Ser Arg 20

<210> 243

<211> 78

<212> PRT

<213> Homo sapiens

<400> 243

Ala Phe Asp Glu Gly Asn Lys Met Glu Leu Arg Lys Asn Thr Ile Leu 1 5 10 15

Ile Ile Tyr Tyr Ile Ser Arg Met Leu Phe Leu Arg Ser Ile Leu Trp
20 25 30

Leu Ser Ser Leu Phe Phe Cys His Phe Val Pro Thr Ser His Ser Leu 35 40 45

Gly Phe Gln Asn Ile Thr Ser Val Tyr Asn Ala Thr Leu Gln Gln Thr 50 55 60

Val Phe Gln His Asp Ser Lys Thr Val Thr Thr Cys Phe Thr 65 70 75

<210> 244

<211> 25

<212> PRT

<213> Homo sapiens

<400> 244

Gly Thr Arg Trp Lys Leu Phe Gln Gln Arg Phe Leu Tyr Arg Gly Asn 1 5 10 15

Arg Glu Phe Gln Asn Lys Lys Leu Ser

```
<210> 245
<211> 100
<212> PRT
<213> Homo sapiens
<400> 245
Gly Thr Arg Trp Lys Leu Phe Gln Gln Arg Phe Leu Tyr Arg Gly Asn
                                      10
Arg Glu Phe Gln Asn Lys Lys Leu Ser Met Phe Cys Val Phe Ile Leu
Thr Phe Phe Met Val Phe Asn Leu Trp Leu Ala Ala Thr Val Tyr His
Val Tyr Gly Thr Cys Lys Lys Val Leu Asp Ile Gln Ile Leu Arg Asp
Glu Ile Thr Phe Thr Tyr Lys Asn His Phe Tyr Cys Gly Leu Thr Ala
                     70
Leu Ser Ser Arg Ile Leu Asn Asp Ile Thr Asn Ile Leu His Val Ile
                                      90
                 85
Cys Ser Phe Glu
            100
<210> 246
<211> 10
<212> PRT
<213> Homo sapiens
<400> 246
Gly Thr Ser Ala Ile Pro Val Phe Ala Ala
 1
<210> 247
<211> 122
<212> PRT
<213> Homo sapiens
<400> 247
Leu Asp Phe Ile Leu Ser Ser Trp Leu Ser Thr Arg Gln Pro Met Lys
                5
                                     10
Asp Ile Lys Gly Ser Trp Thr Gly Lys Asn Arg Val Gln Asn Pro Tyr
                                 25
Ser His Gly Asn Ile Val Lys Asn Cys Cys Glu Val Leu Cys Gly Pro
```

Ser Gly Ser Arg Pro Pro Ser Thr Gln Glu Thr Ser Ser Ser Leu Leu

Leu Pro Pro Ser Val Leu Asp Arg Gly Ile Leu Pro Leu Glu Glu

Pro Gln Ser Pro Ala Pro Thr Glu His Leu Asn Ser Asn Glu Met Pro 85 90 95

Glu Asp Ser Ser Thr Pro Glu Glu Met Pro Pro Pro Glu Pro Pro Glu
100 105 110

Pro Pro Gln Glu Ala Ala Glu Ala Glu Lys 115 120

<210> 248

<211> 27

<212> PRT

<213> Homo sapiens

<400> 248

Lys Gly Ser Trp Thr Gly Lys Asn Arg Val Gln Asn Pro Tyr Ser His

1 10 15

Gly Asn Ile Val Lys Asn Cys Cys Glu Val Leu 20 25

<210> 249

11

U

IJ

=

Ш

n.

<u>L</u>

<211> 25

<212> PRT

<213> Homo sapiens

<400> 249

Asp Arg Arg Gly Ile Leu Pro Leu Glu Glu Ser Gly Ser Arg Pro Pro 1 5 10 15

Ser Thr Gln Glu Thr Ser Ser Ser Leu 20 25

<210> 250

<211> 17

<212> PRT

<213> Homo sapiens

<400> 250

Pro Glu Asp Ser Ser Thr Pro Glu Glu Met Pro Pro Pro Glu Pro Pro 1 5 10 15

Glu

<210> 251

<211> 389

<212> PRT

<213> Homo sapiens

<400> 251

Phe Gln Ser Trp Ala Gln Pro Leu Phe Leu Leu Ser Cys Asn Arg Lys 1 5 10 15

- Thr His Phe Gly Ala Gly Ile Pro Ile Met Ser Val Met Val Val Arg 20 25 30
- Lys Lys Val Thr Arg Lys Trp Glu Lys Leu Pro Gly Arg Asn Thr Phe $35 \hspace{1cm} 40 \hspace{1cm} 45$
- Cys Cys Asp Gly Arg Val Met Met Ala Arg Gln Lys Gly Ile Phe Tyr 50 55 60
- Leu Thr Leu Phe Leu Ile Leu Gly Thr Cys Thr Leu Phe Phe Ala Phe 65 70 75 80
- Glu Cys Arg Tyr Leu Ala Val Gln Leu Ser Pro Ala Ile Pro Val Phe
 85 90 95
- Ala Ala Met Leu Phe Leu Phe Ser Met Ala Thr Leu Leu Arg Thr Ser 100 105 110
- Phe Ser Asp Pro Gly Val Ile Pro Arg Ala Leu Pro Asp Glu Ala Ala 115 120 125
- Phe Ile Glu Met Glu Ile Glu Ala Thr Asn Gly Ala Val Pro Gln Gly 130 135 140
- Gln Arg Pro Pro Pro Arg Ile Lys Asn Phe Gln Ile Asn Asn Gln Ile 145 150 155 160
- Val Lys Leu Lys Tyr Cys Tyr Thr Cys Lys Ile Phe Arg Pro Pro Arg 165 170 175
- Ala Ser His Cys Ser Ile Cys Asp Asn Cys Val Glu Arg Phe Asp His
 180 185 190
- His Cys Pro Trp Val Gly Asn Cys Val Gly Lys Arg Asn Tyr Arg Tyr
 195 200 205
- Phe Tyr Leu Phe Ile Leu Ser Leu Ser Leu Leu Thr Ile Tyr Val Phe 210 215 220
- Ala Phe Asn Ile Val Tyr Val Ala Leu Lys Ser Leu Lys Ile Gly Phe 225 230 235 240
- Leu Glu Thr Leu Lys Glu Thr Pro Gly Thr Val Leu Glu Val Leu Ile 245 250 255
- Cys Phe Phe Thr Leu Trp Ser Val Val Gly Leu Thr Gly Phe His Thr 260 265 270
- Phe Leu Val Ala Leu Asn Gln Thr Thr Asn Glu Asp Ile Lys Gly Ser 275 280 285
- Trp Thr Gly Lys Asn Arg Val Gln Asn Pro Tyr Ser His Gly Asn Ile 290 295 300
- Val Lys Asn Cys Cys Glu Val Leu Cys Gly Pro Leu Pro Pro Ser Val 305 310 315 320
- Leu Asp Arg Arg Gly Ile Leu Pro Leu Glu Glu Ser Gly Ser Arg Pro

132 325 330 335

Pro Ser Thr Gln Glu Thr Ser Ser Leu Leu Pro Gln Ser Pro Ala 340 345 350

Pro Thr Glu His Leu Asn Ser Asn Glu Met Pro Glu Asp Ser Ser Thr 355 360 365

Pro Glu Glu Met Pro Pro Pro Glu Pro Pro Glu Pro Pro Gln Glu Ala 370 375 380

Ala Glu Ala Glu Lys 385

<210> 252

<211> 184

<212> PRT

<213> Homo sapiens

<400> 252

Met Leu Phe Leu Phe Ser Met Ala Thr Leu Leu Arg Thr Ser Phe Ser 1 5 10 15

Asp Pro Gly Val Ile Pro Arg Ala Leu Pro Asp Glu Ala Ala Phe Ile 20 25 30

Glu Met Glu Ile Glu Ala Thr Asn Gly Ala Val Pro Gln Gly Gln Arg 35 40 45

Pro Pro Pro Arg Ile Lys Asn Phe Gln Ile Asn Asn Gln Ile Val Lys 50 55 60

Leu Lys Tyr Cys Tyr Thr Cys Lys Ile Phe Arg Pro Pro Arg Ala Ser 65 70 75 80

His Cys Ser Ile Cys Asp Asn Cys Val Glu Arg Phe Asp His His Cys 85 90 95

Pro Trp Val Gly Asn Cys Val Gly Lys Arg Asn Tyr Arg Tyr Phe Tyr
100 105 110

Leu Phe Ile Leu Ser Leu Ser Leu Leu Thr Ile Tyr Val Phe Ala Phe 115 120 125

Asn Ile Val Tyr Val Ala Leu Lys Ser Leu Lys Ile Gly Phe Leu Glu 130 135 140

Thr Leu Lys Gly Asn Ser Trp Asn Cys Ser Arg Ser Pro His Leu Leu 145 150 155 160

Leu Tyr Thr Leu Val Arg Arg Gly Thr Asp Trp Ile Ser Tyr Phe Pro 165 170 175

Arg Gly Ser Gln Pro Asp Asn Gln 180

```
<211> 8
<212> PRT
<213> Homo sapiens
<400> 253
Tyr Leu Leu Gln Glu Asn Asn Leu
<210> 254
<211> 12
<212> PRT
<213> Homo sapiens
<400> 254
Val Arg Leu Leu Gly Leu Cys Ile Ala Gln Gly His
<210> 255
<211> 188
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (185)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 255
Met Arg Val Gly Arg Arg Pro Lys Ala Gln Arg Val Gln Gly Gln Asn
Gly Asn His Ser Ser Asp Ser Glu Gly Ser Phe Ser Leu Leu Cys Leu
Gln Leu Phe Ser Lys Phe Ala Val Val Ser Ile Leu Leu Leu Leu
Leu Leu Phe Asn Thr Ser Lys Lys Leu Met Thr Phe Ser Leu Asp
                         55
Ser Leu Leu Ser Pro Ile Ser Ile Pro Thr Ala Leu Leu Phe Gly Ser
Pro Pro Pro Pro Ser His Arg Gly Tyr Gly Val Gly Ser Ala Pro
Leu Lys Glu Lys Gln Met Lys Glu Leu Val Pro Pro Arg Arg Glu Cys
            100
                                105
Thr Val Gln Gly Gln Pro Trp Gln Gly Pro Ser Leu Pro Gly Pro Ala
        115
                            120
Glu Leu Gly His Arg Pro Gly Thr Arg Leu Gly Val Glu Cys Asp Gly
                        135
Glu Trp Cys Pro Arg Ser Cys Phe Trp Glu Leu Leu Gly Pro Pro Tyr
                    150
```

```
Leu Lys Cys Ser Gln Pro Ser Pro Ile Pro Pro Leu Asp Gly Thr Gln
         . 165
                                   170
Thr Ser Ala Glu Arg Gly Arg Gly Xaa Ala Leu Lys
                               185
            180
<210> 256
<211> 35
<212> PRT
<213> Homo sapiens
<400> 256
Pro Lys Ala Gln Arg Val Gln Gly Gln Asn Gly Asn His Ser Ser Asp
                                    10
Ser Glu Gly Ser Phe Ser Leu Leu Cys Leu Gln Leu Phe Ser Lys Phe
                               25
Ala Val Val
    35
<210> 257
<211> 22
<212> PRT
<213> Homo sapiens
<400> 257
Leu Asp Ser Leu Leu Ser Pro Ile Ser Ile Pro Thr Ala Leu Leu Phe
Gly Ser Pro Pro Pro Pro
           20
<210> 258
<211> 24
<212> PRT
<213> Homo sapiens
<400> 258
Glu Leu Val Pro Pro Arg Arg Glu Cys Thr Val Gln Gly Gln Pro Trp
Gln Gly Pro Ser Leu Pro Gly Pro
            20
<210> 259
<211> 25
<212> PRT
<213> Homo sapiens
<400> 259
```

Arg Leu Gly Val Glu Cys Asp Gly Glu Trp Cys Pro Arg Ser Cys Phe 10

Trp Glu Leu Leu Gly Pro Pro Tyr Leu
20 25

<210> 260

<211> 9

<212> PRT

<213> Homo sapiens

<400> 260

Trp His Ile Ser Glu Pro Asn Gly Gln
1 5

<210> 261

<211> 36

<212> PRT

<213> Homo sapiens

<400> 261

Arg Pro Ser Arg Leu Arg Arg Leu Lys Ala Pro Phe Ser Ala Trp 1 5 10 15

Lys Thr Arg Leu Ala Gly Ala Lys Gly Gly Leu Ser Val Gly Asp Phe 20 25 30

Arg Lys Val Leu 35

<210> 262

<211> 53

<212> PRT

<213> Homo sapiens

<400> 262

Trp Pro Ser Gly Leu Gly Arg Thr Ser Ser Leu Arg Gly Ser Glu Ala 1 5 10 15

Gln Ser Trp Cys Ser Ser Ala Gly His Gly Pro Pro Pro Ala Leu Gly 20 25 30

Ser Pro Ala Ser Cys Gly Gly Cys Phe Ser Pro Thr Arg Ala Ser Ala 35 40 45

Pro Ala Ala Gly Gly 50

<210> 263

<211> 29

<212> PRT

<213> Homo sapiens

<400> 263

Ser Leu Arg Gly Ser Glu Ala Gln Ser Trp Cys Ser Ser Ala Gly His 1 5 10 15

Gly Pro Pro Pro Ala Leu Gly Ser Pro Ala Ser Cys Gly

<210> 264

<211> 102

<212> PRT

<213> Homo sapiens

<400> 264

Lys Pro His Leu Gly Pro Arg Gly Ser Ile Glu Pro Ser Gln Ala Ser 1 5 10 15

Ser Arg Asn Pro Gly Leu Val Thr Glu Gln Ser Cys Leu Gln Gly Pro 20 25 30

Ser Gly His Arg Ala Trp Ala Gly His His Leu Ser Glu Gly Gln Arg 35 40 45

Leu Arg Ala Gly Ala Ala Gln Gln Val Thr Ala Leu His Gln Leu Trp 50 55 60

Val Leu Pro His His Val Val Ala Ala Phe Pro Pro Pro Gly Pro Gln 65 70 75 80

Leu Gln Gln Leu Val Gly Glu Leu Ser Thr Ala Tyr Ser Lys His Val
85 90 95

Leu Arg His Ala Glu His 100

<210> 265

<211> 30

<212> PRT

<213> Homo sapiens

<400> 265

Ser Arg Asn Pro Gly Leu Val Thr Glu Gln Ser Cys Leu Gln Gly Pro 1 5 10 15

Ser Gly His Arg Ala Trp Ala Gly His His Leu Ser Glu Gly
20 25 30

<210> 266

<211> 33

<212> PRT

<213> Homo sapiens

<400> 266

Thr Ala Leu His Gln Leu Trp Val Leu Pro His His Val Val Ala Ala $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Phe Pro Pro Gly Pro Gln Leu Gln Gln Leu Val Gly Glu Leu Ser 20 25 30

Thr

```
<210> 267
```

<212> PRT

<213> Homo sapiens

<400> 267

Arg Pro Ser Arg Leu Arg Arg Leu Lys Ala Pro Phe Ser Ala Trp
1 5 10 15

Lys Thr Arg Leu Ala Gly Ala Lys Gly Gly Leu Ser Val Gly Asp Phe 20 25 30

Arg Lys Val Leu Met Lys Thr Gly Leu Val Leu Val Val Leu Gly His $35 \hspace{1cm} 40 \hspace{1cm} 45$

Val Ser Phe Ile Thr Ala Ala Leu Phe His Gly Thr Val Leu Arg Tyr 50 55 60

Val Gly Thr Pro Gln Asp Ala Val Ala Leu Gln Tyr Cys Val Val Asn 65 70 75 80

Ile Leu Ser Val Thr Ser Ala Ile Val Val Ile Thr Ser Gly Ile Ala 85 90 95

Ala Ile Val Leu Ser Arg Tyr Leu Pro Ser Thr Pro Leu Arg Trp Thr
100 105 110

Val Phe Ser Ser Val Ala Cys Ala Leu Leu Ser Leu Thr Cys Ala 115 120 125

Leu Gly Leu Leu Ala Ser Ile Ala Met Thr Phe Ala Thr Gln Gly Lys
130 135 140

Ala Leu Leu Ala Ala Cys Thr Phe Gly Ser Ser Glu Leu Leu Ala Leu 145 150 155 160

Ala Pro Asp Cys Pro Phe Asp Pro Thr Arg Ile Tyr Ser Ser Ser Leu 165 170 175

Cys Leu Trp Gly Ile Ala Leu Val Leu Cys Val Ala Glu Asn Val Phe 180 185 190

Ala Val Arg Cys Ala Gln Leu Thr His Gln Leu Leu Glu Leu Arg Pro 195 200 205

Trp Gly Lys Ser Ser His His Met Met Arg Glu Asn Pro Glu Leu 210 215 220

Val Glu Gly Arg Asp Leu Leu Ser Cys Thr Ser Ser Glu Pro Leu Thr 225 230 235 240

Leu

<211> 241 .

<210> 268

<211> 37

<212> PRT

<213> Homo sapiens

<400> 268 .

Ala Glu Gly Leu Gln Ser Ala Ala Gly Ile Arg Ile Asp Thr Lys Ala 1 5 10 15

Gly Pro Pro Glu Met Leu Lys Pro Leu Trp Lys Ala Ala Val Ala Pro 20 25 30

Thr Trp Pro Cys Ser 35

<210> 269

<211> 525

<212> PRT

<213> Homo sapiens

<400> 269

Gly Pro Ala Val Cys Gly Trp Asn Gln Asp Arg His Gln Gly Arg Thr
1 5 10 15

Pro Arg Asp Ala Glu Ala Ser Leu Glu Ser Ser Gly Pro His Met 20 25 30

Ala Met Leu His Ala Ala Pro Pro Pro Val Gly Gln Arg Gly Trp His
35 40 45

Val Ala Gly Pro Gly Ser Ala Gly Cys Ala Val Ala Gly Leu Arg Gly 50 55 60

Ser Tyr Leu Pro Pro Val Ala Ser Ala Pro Ser Ser His Leu Gly Pro 65 70 75 80

Gly Ala Ala Gln Gly Arg Ala Gln Val Leu Gly Ala Trp Leu Pro Ala 85 90 95

Gln Leu Gly Ser Pro Trp Lys Gln Arg Ala Arg Gln Gln Arg Asp Ser 100 105 110

Cys Gln Leu Val Leu Val Glu Ser Ile Pro Gln Asp Leu Pro Ser Ala 115 120 125

Ala Gly Ser Pro Ser Ala Gln Pro Leu Gly Gln Ala Trp Leu Gln Leu 130 135 140

Leu Asp Thr Ala Gln Glu Ser Val His Val Ala Ser Tyr Tyr Trp Ser 145 150 155 160

Leu Thr Gly Pro Asp Ile Gly Val Asn Asp Ser Ser Ser Gln Leu Gly
165 170 175

Glu Ala Leu Leu Gln Lys Leu Gln Gln Leu Leu Gly Arg Asn Ile Ser 180 185 190

Leu Ala Val Ala Thr Ser Ser Pro Thr Leu Ala Arg Thr Ser Thr Asp 195 200 205

Leu Gln Val Leu Ala Ala Arg Gly Ala His Val Arg Gln Val Pro Met

Gly 225	Arg	, Lev	ı Thr	Met	: Gl _y 230		l Leu	ı His	s Ser	c Lys 235		e Trp	Val	L Val	Asp 240
Gly	Arg	His	: Ile	Tyr 245		Gl _y	/ Ser	· Ala	Asr 250		. Asp	Trp	Arg	5 Ser 255	Leu
Thr	Gln	Val	Lys 260		. Leu	. Gl	y Ala	. Val 265		· Tyr	: Asn	. Суз	Ser 270		: Leu
Gly	Gln	Asp 275		Glu	Lys	Thr	Phe 280		Thr	Tyr	Trp	Val 285		Gly	v Val
Pro	Lys 290	Ala	Val	Leu	Pro	Lys 295		Trp	Pro	Gln	. Asn 300		Ser	Ser	His
Phe 305	Asn	Arg	Phe	Gln	Pro 310	Phe	His	Gly	Leu	Phe 315	Asp	Gly	Val	Pro	Thr 320
Thr	Ala	Tyr	Phe	Ser 325	Ala	Ser	Pro	Pro	Ala 330	Leu	Cys	Pro	Gln	Gly 335	Arg
Thr	Arg	Asp	Leu 340	Glu	Ala	Leu	Leu	Ala 345	Val	Met	Gly	Ser	Ala 350	Gln	Glu
Phe	Ile	Tyr 355	Ala	Ser	Val	Met	Glu 360	Tyr	Phe	Pro	Thr	Thr 365	Arg	Phe	Ser
	Pro 370	Pro	Arg	Tyr	Trp	Pro 375	Val	Leu	Asp	Asn	Ala 380	Leu	Arg	Ala	Ala
Ala 385	Phe	Gly	Lys	Gly	Val 390	Arg	Val	Arg	Leu	Leu 395	Val	Gly	Cys	Gly	Leu 400
Asn	Thr	Asp	Pro	Thr 405	Met	Phe	Pro	Tyr	Leu 410	Arg	Ser	Leu	Gln	Ala 415	Leu
Ser .	Asn	Pro	Ala 420	Ala	Asn	Val	Ser	Val 425	Asp	Val	Lys	Val	Phe 430	Ile	Val
Pro '	Val	Gly 435	Asn	His	Ser	Asn	Ile 440	Pro	Phe	Ser	Arg	Val 445	Asn	His	Ser
Lys :	Phe 450	Met	Val	Thr	Glu	Lys 455	Ala	Ala	Tyr	Ile	Gly 460	Thr	Ser	Asn	Trp
Ser (3lu	Asp	Tyr	Phe	Ser 4 70	Ser	Thr	Ala	Gly	Val 475~	Gly	Leu	Val	Val	Thr` 480
Gln S	Ser	Pro		Ala 485	Gln	Pro	Ala	Gly	Ala 490	Thr	Val	Gln	Glu	Gln 495	Leu
Arg (3ln		Phe 500	Glu	Arg	Asp	Trp	Ser 505	Ser	Arg	Tyr	Ala	Val 510	Gly	Leu
Asp G		Gln 515	Ala	Pro	Gly		Asp 520	Cys	Val	Trp		Gly 525			

```
<210> 270
. <211> 24
 <212> PRT
 <213> Homo sapiens
 <400> 270
 Gln Gly Arg Thr Pro Arg Asp Ala Glu Ala Ser Leu Glu Ser Ser Ser
                   5
                                       10
 Gly Pro His Met Ala Met Leu His
              20
 <210> 271
 <211> 23
 <212> PRT
 <213> Homo sapiens
 <400> 271
 Gly Ser Ala Gly Cys Ala Val Ala Gly Leu Arg Gly Ser Tyr Leu Pro
                   5
                                      10
Pro Val Ala Ser Ala Pro Ser
              20
<210> 272
<211> 29
<212> PRT
<213> Homo sapiens
<400> 272
Ala Gln Gly Arg Ala Gln Val Leu Gly Ala Trp Leu Pro Ala Gln Leu
Gly Ser Pro Trp Lys Gln Arg Ala Arg Gln Gln Arg Asp
             20
<210> 273
<211> 21
<212> PRT
<213> Homo sapiens
Pro Ser Ala Ala Gly Ser Pro Ser Ala Gln Pro Leu Gly Gln Ala Trp
                 5
                                     10
Leu Gln Leu Leu Asp
             20
<210> 274
<211> 26
<212> PRT
<213> Homo sapiens
<400> 274
```

```
141
 Val Ala Ser Tyr Tyr Trp Ser Leu Thr Gly Pro Asp Ile Gly Val Asn
   1 5
                                  10
 Asp Ser Ser Gln Leu Gly Glu Ala Leu
 <210> 275
 <211> 25
 <212> PRT
 <213> Homo sapiens
 <400> 275
 Ser Leu Ala Val Ala Thr Ser Ser Pro Thr Leu Ala Arg Thr Ser Thr
                       10
 Asp Leu Gln Val Leu Ala Ala Arg Gly
             20
<210> 276
<211> 26
<212> PRT
<213> Homo sapiens
<400> 276
Pro Gln Asn Phe Ser Ser His Phe Asn Arg Phe Gln Pro Phe His Gly
1 5 10
Leu Phe Asp Gly Val Pro Thr Thr Ala Tyr
            20
<210> 277
<211> 27
<212> PRT
<213> Homo sapiens
<400> 277
Pro Gln Gly Arg Thr Arg Asp Leu Glu Ala Leu Leu Ala Val Met Gly
                        10
Ser Ala Gln Glu Phe Ile Tyr Ala Ser Val Met
            20
<210> 278
<211> 24
<212> PRT
<213> Homo sapiens
<400> 278
Ser His Pro Pro Arg Tyr Trp Pro Val Leu Asp Asn Ala Leu Arg Ala
                5
                                 10
Ala Ala Phe Gly Lys Gly Val Arg
```

```
<210> 279
 <211> 29
 <212> PRT .
 <213> Homo sapiens
 <400> 279
 Thr Asp Pro Thr Met Phe Pro Tyr Leu Arg Ser Leu Gln Ala Leu Ser
                                      10
 Asn Pro Ala Ala Asn Val Ser Val Asp Val Lys Val Phe
              20
                                  25
 <210> 280
 <211> 31
 <212> PRT
 <213> Homo sapiens
<400> 280
Asp Val Lys Val Phe Ile Val Pro Val Gly Asn His Ser Asn Ile Pro
                                      10
Phe Ser Arg Val Asn His Ser Lys Phe Met Val Thr Glu Lys Ala
              20
                                 25
<210> 281
<211> 24
<212> PRT
<213> Homo sapiens
<400> 281
Gln Leu Arg Gln Leu Phe Glu Arg Asp Trp Ser Ser Arg Tyr Ala Val
                                      10
Gly Leu Asp Gly Gln Ala Pro Gly
             20
<210> 282
<211> 257
<212> PRT
<213> Homo sapiens
<400> 282
Ala Glu Gly Leu Gln Ser Ala Ala Gly Ile Arg Ile Asp Thr Lys Ala
Gly Pro Pro Glu Met Leu Lys Pro Leu Trp Lys Ala Ala Val Ala Pro
             20
                                 25
                                                      30
Thr Trp Pro Cys Ser Met Pro Pro Arg Arg Pro Trp Asp Arg Glu Ala
Gly Thr Leu Gln Val Leu Gly Ala Leu Ala Val Leu Trp Leu Gly Ser
                         55
Val Ala Leu Ile Cys Leu Leu Trp Gln Val Pro Arg Pro Pro Thr Trp
                     70
                                         75
```

Gly Gln Val Gln Pro Lys Asp Val Pro Arg Ser Trp Glu His Gly Phe
85 90 95

Gln Pro Ser Leu Gly Ala Pro Gly Ser Arg Gly Pro Gly Ser Arg Gly
100 105 110

Thr Pro Ala Ser Leu Ser Leu Trp Lys Ala Ser Pro Arg Thr Cys His
115 120 125

Leu Gln Pro Ala Ala Pro Leu Pro Ser Leu Trp Ala Arg Pro Gly Cys 130 135 140

Ser Cys Trp Thr Leu Pro Arg Arg Ala Ser Thr Trp Leu His Thr Thr 145 150 155 160

Gly Pro Ser Gln Gly Leu Thr Ser Gly Ser Thr Thr Arg Leu Pro Ser 165 170 175

Trp Glu Arg Leu Phe Cys Arg Ser Cys Ser Ser Cys Trp Ala Gly Thr 180 185 190

Phe Pro Trp Leu Trp Pro Pro Ala Ala Arg His Trp Pro Gly His Pro 195 200 205

Pro Thr Cys Arg Phe Trp Leu Pro Glu Val Pro Met Tyr Asp Arg Cys 210 215 220

Pro Trp Gly Gly Ser Pro Trp Val Phe Cys Thr Pro Asn Ser Gly Leu 225 230 235 240

Trp Met Asp Gly Thr Tyr Thr Trp Ala Val Pro Thr Trp Thr Gly Gly
245 250 255

Leu

<210> 283

<211> 10

<212> PRT

<213> Homo sapiens

<400> 283

Lys Gln Pro Arg Gln Leu Phe Asn Ser Leu
1 5 10

<210> 284

<211> 34

<212> PRT

<213> Homo sapiens

<400> 284

Thr Gln Ser Thr Gly Leu Glu Ser Ser Cys Ser Glu Ala Pro Gly Leu

1 5 10 15

Pro Leu Thr Phe Leu Val Ala Ala Thr Gln Arg Ala Leu Glu Trp Thr
20 25 30

Gln Gly

<210> 285

<211> 100

<212> PRT

<213> Homo sapiens

<400> 285

Thr Gln Ser Thr Gly Leu Glu Ser Ser Cys Ser Glu Ala Pro Gly Leu
1 5 10 15

Pro Leu Thr Phe Leu Val Ala Ala Thr Gln Arg Ala Leu Glu Trp Thr
20 25 30

Gln Gly Met Leu Leu Ile Ser Ala Val Gln Val Phe Ile Leu Leu Ser 35 40 45

Pro Ser Phe Tyr Leu Ile Leu Tyr Leu Leu Arg Pro Gly Gly Thr Gly 50 55 60

Arg Gly Leu Glu Pro Ile Cys Pro Ala Ala Glu Trp Gly Gly Trp Arg 65 70 75 80

Asp Gly Tyr Leu Trp Leu Gln Tyr Gln Glu Pro Thr Val Ser Leu Asp 85 90 95

Asn Trp Gly Asn 100

<210> 286

<211> 228

<212> PRT

<213> Homo sapiens

<400> 286

Asp Thr Lys Asn Cys Gly Gln Glu Leu Ala Asn Leu Glu Lys Trp Lys 1 5 10 15

Glu Gln Asn Arg Ala Lys Pro Val His Leu Val Pro Arg Arg Leu Gly
20 25 30

Gly Ser Gln Ser Glu Thr Glu Val Arg Gln Lys Gln Gln Leu Gln Leu 35 40 45

Met Gln Ser Lys Tyr Lys Gln Lys Leu Lys Arg Glu Glu Ser Val Arg 50 55 60

Ile Lys Lys Glu Ala Glu Glu Ala Glu Leu Gln Lys Met Lys Ala Ile
65 70 75 80

Gln Arg Glu Lys Ser Asn Lys Leu Glu Glu Lys Lys Arg Leu Gln Glu 85 90 95

Asn Leu Arg Arg Glu Ala Phe Arg Glu His Gln Gln Tyr Lys Thr Ala 100 105 110 Glu Phe Leu Ser Lys Leu Asn Thr Glu Ser Pro Asp Arg Ser Ala Cys
115 120 125

Gln Ser Ala Val Cys Gly Pro Gln Ser Ser Thr Trp Ala Arg Ser Trp 130 135 140

Ala Tyr Arg Asp Ser Leu Lys Ala Glu Glu Asn Arg Lys Leu Gln Lys 145 150 155 160

Met Lys Asp Glu Gln His Gln Lys Ser Glu Leu Leu Glu Leu Lys Arg 165 170 175

Gln Gln Glu Gln Glu Arg Ala Lys Ile His Gln Thr Glu His Arg 180 185 190

Arg Val Asn Asn Ala Phe Leu Asp Arg Leu Gln Gly Lys Ser Gln Pro 195 200 205

Gly Gly Leu Glu Gln Ser Gly Gly Cys Trp Asn Met Asn Ser Gly Asn 210 215 220

Ser Trp Gly Ile 225

<210> 287

<211> 21

<212> PRT

<213> Homo sapiens

<400> 287

Gly Gln Glu Leu Ala Asn Leu Glu Lys Trp Lys Glu Gln Asn Arg Ala 1 5 10 15

Lys Pro Val His Leu 20

<210> 288

<211> 26

<212> PRT

<213> Homo sapiens

<400> 288

Arg Arg Leu Gly Gly Ser Gln Ser Glu Thr Glu Val Arg Gln Lys Gln 1 5 10 15

<210> 289

<211> 21

<212> PRT

<213> Homo sapiens

<400> 289

Glu Glu Ala Glu Leu Gln Lys Met Lys Ala Ile Gln Arg Glu Lys Ser

```
Asn Lys Leu Glu Glu
20
```

<210> 290

<211> 22

<212> PRT

<213> Homo sapiens

<400> 290

His Gln Gln Tyr Lys Thr Ala Glu Phe Leu Ser Lys Leu Asn Thr Glu

1 10 15

Ser Pro Asp Arg Ser Ala 20

<210> 291

<211> 23

<212> PRT

<213> Homo sapiens

<400> 291

the state of the s

E

Į.i.

Leu Leu Glu Leu Lys Arg Gln Gln Gln Gln Gln Gln Arg Ala Lys Ile

1 10 15

His Gln Thr Glu His Arg Arg 20

<210> 292

<211> 22

<212> PRT

<213> Homo sapiens

<400> 292

Leu Asp Arg Leu Gln Gly Lys Ser Gln Pro Gly Gly Leu Glu Gln Ser 1 5 10 15

Gly Gly Cys Trp Asn Met 20

<210> 293

<211> 13

<212> PRT

<213> Homo sapiens

<400> 293

Leu Phe Ser Gly Glu Cys Leu Gln Arg Leu Trp Val Arg 1 5 10

<210> 294

<211> 79

<212> PRT

<213> Homo sapiens

<400> 294

Arg His Glu Leu Val Pro Leu Val Pro Gly Leu Val Asn Ser Glu Val
1 5 10 15

His Asn Glu Asp Gly Arg Asn Gly Asp Val Ser Gln Phe Pro Tyr Val 20 25 30

Glu Phe Thr Gly Arg Asp Ser Val Thr Cys Pro Thr Cys Gln Gly Thr 35 40 45

Gly Arg Ile Pro Arg Gly Gln Glu Asn Gln Leu Val Ala Leu Ile Pro 50 55 60

Tyr Ser Asp Gln Arg Leu Arg Pro Arg Arg Thr Lys Leu Tyr Val 65 70 75

<210> 295

<211> 23

<212> PRT

<213> Homo sapiens

<400> 295

Pro Gly Leu Val Asn Ser Glu Val His Asn Glu Asp Gly Arg Asn Gly 1 5 10 15

Asp Val Ser Gln Phe Pro Tyr 20

<210> 296

<211> 26

<212> PRT

<213> Homo sapiens

<400> 296

Thr Cys Pro Thr Cys Gln Gly Thr Gly Arg Ile Pro Arg Gly Gln Glu
1 5 10 15

Asn Gln Leu Val Ala Leu Ile Pro Tyr Ser 20 25

<210> 297

<211> 255

<212> PRT

<213> Homo sapiens

<400> 297

Arg His Glu Leu Val Pro Leu Val Pro Gly Leu Val Asn Ser Glu Val

1 1.0 1.5

His Asn Glu Asp Gly Arg Asn Gly Asp Val Ser Gln Phe Pro Tyr Val
20 25 30

Glu Phe Thr Gly Arg Asp Ser Val Thr Cys Pro Thr Cys Gln Gly Thr 35 40 45

Gly	Arg		e Pro	o Arg	, Gly	Gln 55		ı Asr	148 n Glr		ı Val		a Lei	ı Ile	e Pr
Tyr 65	Ser	Asp	Glr	ı Arg	r Leu 70	Arg	Pro	Arç	ı Arg	Thr 75		: Lev	і Туг	Val	. Met
Ala	Ser	Val	Phe	Val	Cys	Leu	Leu	. Leu	Ser 90		Leu	ı Ala	ı Val	Phe	
Leu	Phe	Pro	Arg 100		Ile	Asp	Val	Lys 105		·Ile	Gly	Val	. Lys 110		Ala
Tyr	Val	Ser 115	Tyr	Asp	Val	Gln	Lys 120	Arg	Thr	Ile	Tyr	Leu 125		Ile	Thr
Asn	Thr 130	Leu	Asn	Ile	Thr	Asn 135	Asn	Asn	Tyr	Tyr	Ser 140	Val	Glu	Val	Glu
Asn 145	Ile	Thr	Ala	Gln	Val 150	Gln	Phe	Ser	Lys	Thr 155	Val	Ile	Gly	Lys	Ala 160
Arg	Leu	Asn	Asn	Ile 165	Ser	Ile	Ile	Gly	Pro 170	Leu	Asp	Met	Lys	Gln 175	Ile
Asp	Tyr	Thr	Val 180	Pro	Thr	Val	Ile	Ala 185	Glu	Glu	Met	Ser	Tyr 190	Met	Tyr
Asp	Phe	Cys 195	Thr	Leu	Ile	Ser	Ile 200	Lys	Val	His	Asn	Ile 205	Val	Leu	Met
Met	Gln 210	Val	Thr	Val	Thr	Thr 215	Thr	Туг	Phe'	Gly	His 220	Ser	Glu	Gln	Ile
Ser 225	Gln	Glu	Arg	Tyr	Gln 230	Tyr	Val	Asp	Cys	Gly 235	Arg	Asn	Thr	Thr	Tyr 240
Gln :	Leu	Gly	Gln	Ser 245	Glu	Tyr	Leu	Asn	Val 250	Leu	Gln	Pro	Gln	Gln 255	

<210> 298

<211> 10

<212> PRT

<213> Homo sapiens

<400> 298

Ala Leu Ser Thr Glu Thr Arg Thr Pro Asp 1 5 10